LETTING DATE Dec 17 2024

GRADE AND PAVE

IMX-080-3(299)122--02-77

Polk COUNTY

INDEX OF SHEETS

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

Polk COUNTY

GRADE AND PAVE

WESTBOUND I-80 RAMP AT W I-35/235 INTERCHANGE

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.

IOWA ONE CALL
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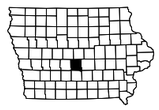
www.iowaonecall.com
811 Know what's below. Call before you dig.

REVISIONS

	TOTAL
	--
PROJECT IDENTIFICATION NUMBER	
20-77-080-020	
PROJECT NUMBER	
IMX-080-3(299)122--02-77	
R.O.W. PROJECT NUMBER	
IMN-080-3(300)122--0E-77	



DESIGN DATA URBAN			
2020	AADT	89,000	V.P.D.
2035	AADT	128,500	V.P.D.
20 --	DHV	--	V.P.H.
TRUCKS		--	%
Total Design ESALs		--	

PRELIMINARY PLANS

Subject to change by final design.

D2 PLAN – Date: 3–17–2022

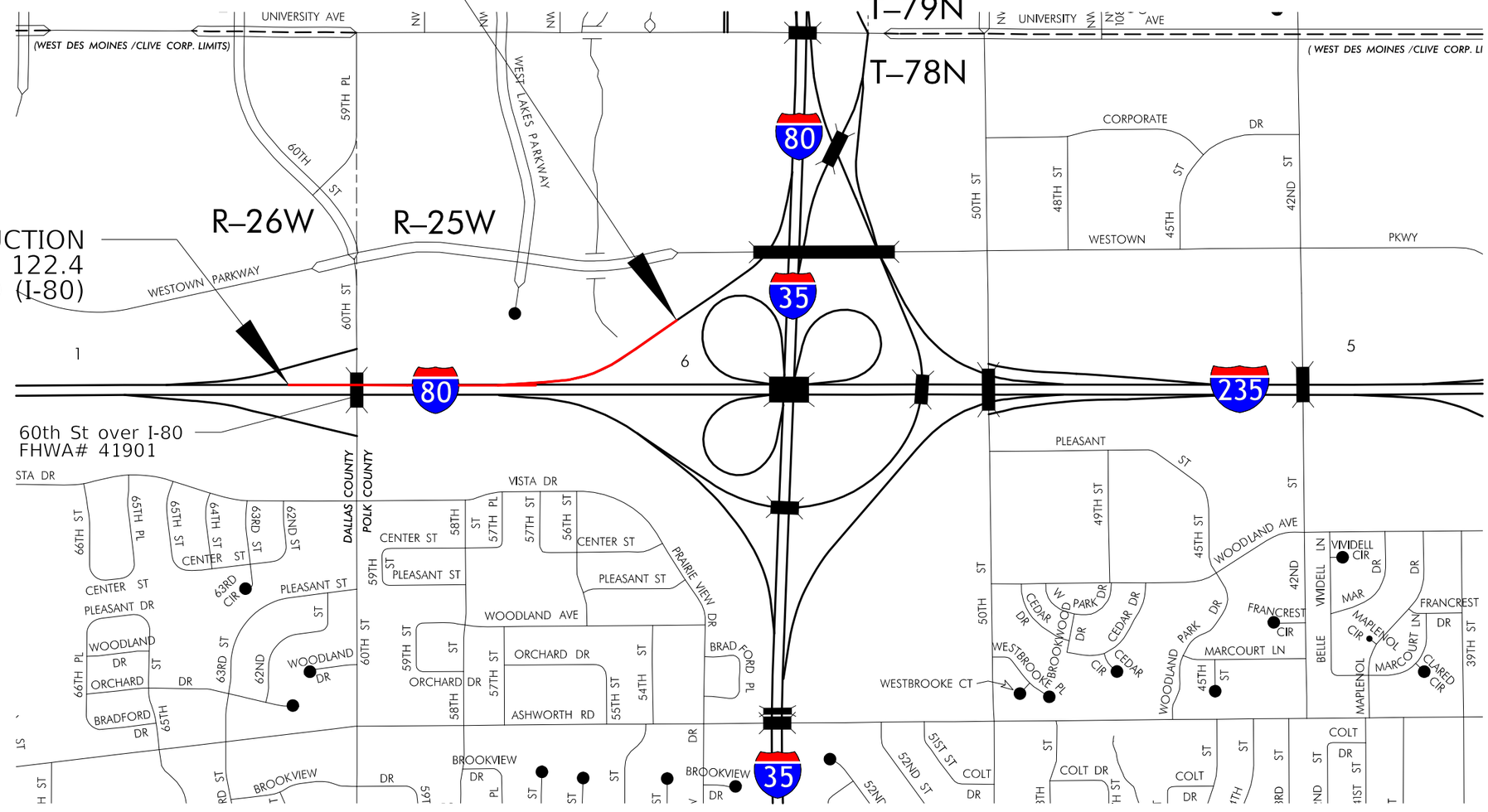
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER A.1

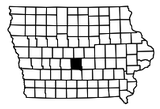
11:21:15 AM 2/28/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_A01.dgn

END CONSTRUCTION
Ref. Loc. 122.8
STA 41316+32 (Ramp C)

BEGIN CONSTRUCTION
Ref. Loc 122.4
STA 1291+80 (I-80)

60th St over I-80
FHWA# 41901





LOCATION MAP SCALE
0 0.1 0.2 0.3
Miles

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER A.2

8:22:34 AM 3/1/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_A01.dgn

FINAL PROJECT CONCEPT STATEMENT

W I-35/I-80 Interchange Southbound to Westbound Exit Ramp
Polk County
IMX-080-3(299)122--02-77
PIN: 20-77-080-020

Highway Division
District 1 Field Office

Benjamin Hucker, P.E.
515-986-5458
March 18, 2021

I. PROJECT BACKGROUND

A. Location Map

B. Project Description

This project will convert the ramp from SB/WB I-35/80 to WB I-80 in the Southwest Mixmaster (SWMM) from the existing dual-lane, inside-merge entrance ramp to a dual lane entrance with dual auxiliary lanes. This location has been identified as a bottleneck in the Des Moines Area Integrated Corridor Management (ICM) study. This conversion will improve traffic flow and add lane continuity for both I-80 and Ramp 72L from WB I-235. This project will match up with a widening project currently under development that will add an additional outside lane, for a total of four WB lanes, from 60th St. to Jordan Creek Parkway.

C. Need for Project

This project is intended to complement the widening project west of 60th Street to improve level of service along this corridor and add capacity. Overall, this area has a mainline LOS between C and D today and is approaching capacity. Significant weaving actions occur between the SWMM and Jordan Creek Parkway as local vehicles from I-235 prepare to exit at Jordan Creek Parkway, while through WB I-80 traffic mixes with this stream as they move to the left side of the roadway to access the through I-80 lanes. The proposed improvements west of 60th Street do not entirely break up the weave between the SWMM and Jordan Creek Parkway. However, four continuous lanes from the Southwest Mixmaster to Jordan Creek Parkway would significantly lengthen the acceleration distance between the I-80 on ramp and I-235 system ramp and improve density by more equally spreading the traffic volume across all available lanes. The current operation limits the number of vehicles that can use the interior lane of I-80 due to the interior merge situation with Ramp 72L.

D. Present Facility

The I-80 WB ramp has two 12’ wide lanes with a 10’ outside and a 6’ inside shoulder and 4:1 foreslopes, constructed in 1991. Ramp 72L (from WB I-235) has two 12’ lanes with a 10’ outside and a 6’ inside shoulder and 6:1 foreslopes, constructed in 1988. Those two cross sections come together to form a cross section with 3-12’ lanes, where the outside lane of Ramp 72L and the inside lane of WB I-80 merge into one lane. This combined cross section maintains a 10’ outside and 6’ inside shoulder and 6:1 foreslopes and was also constructed in 1988.

E. Traffic Estimates

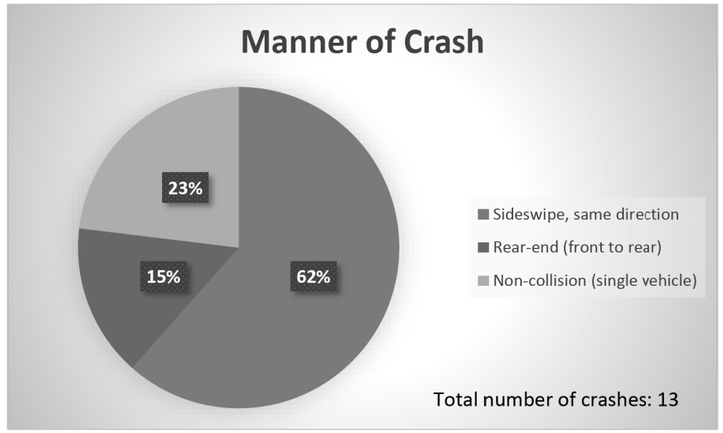
Traffic data was obtained from the Horizon Year 2045 Traffic Analysis memo completed by HDR for the adjacent widening project from 60th St. to Grand Prairie Parkway, using both HDR and Iowa DOT data accessed in May of 2020. Data shared below is specifically identified to cover the area East of 60th St. Traffic estimates indicate 89,000 vehicles per day in the study year of 2020. Assuming the widening to the west is completed, traffic volumes increase to 128,500 vehicles per day in the 2035 Design Year and 143,900 in the Horizon Year of 2045. Upon completion of this project in 2025, traffic volumes are estimated to be 105,700 vehicles per day.

F. Access Control

I-80 is a fully access controlled facility. Additional access rights will not be acquired for this project. No additional access will be allowed.

G. Crash History

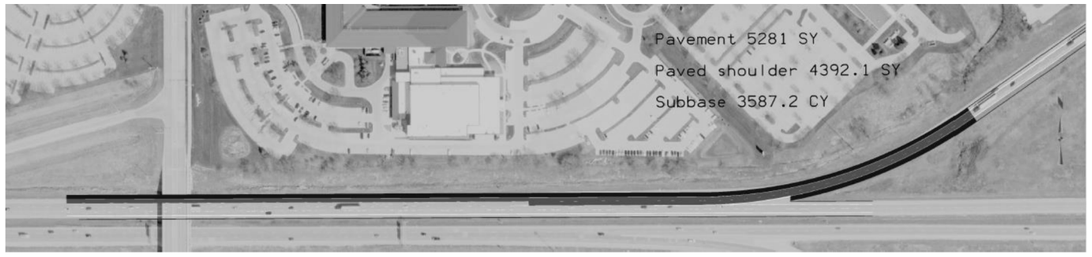
Crashes from the five-year study period from January 1, 2016 through December 31, 2020, for westbound I-80 and westbound Ramp 72L from 1,300 feet east of the merge point to 60th St. (1000’ west of the merge area) were evaluated. In that period, there were 13 crashes that appeared to be related to the merging action including, three possible injury crashes and ten property damage only crashes. A summary of the types of crashes occurring in this area is shown on the following page.



All crashes noted above occurred within the merge area, but only one crash report specifically noted that it occurred at the merge area. Reports for many of the sideswipe crashes indicated that one vehicle was swerving to avoid another vehicle, striking a third vehicle in the process. Reports for two of the single-vehicle crashes indicated the major cause was "swerving/evasive action," which was assumed to indicate a near-miss sideswipe that resulted in one vehicle running off the road. The third single-vehicle crash indicated a major cause of "ran of road – right," and was assumed to also be a near-miss sideswipe that resulted in one vehicle being run off the road.

II. PROPOSED ALTERNATIVE

The proposed improvement will convert the entrance to a dual lane entrance with dual auxiliary lanes on I-80, which will tie in with a widening project immediately west of this project. This will be accomplished by realigning the I-80 curve to allow the two mainline lanes to come in parallel with the lanes from Ramp 72L. Both 2,000 foot and 1,330 foot radii were considered for the realigned curve. While the 2,000-foot radius is more consistent with our current design practices, the 1,300-foot radius alternative, which matches the current configuration, was ultimately chosen to minimize current ROW needs. The tighter curve immediately upstream already slows traffic from the posted speed limit and the existing condition yields a low crash history, so the tighter radius traffic is expected to function acceptably. Furthermore, this ramp is likely to be reconstructed on a completely new alignment upon full-buildout of the Southwest Mixmaster reconstruction, and minimizing the ROW and grading needs required for this project will minimize any future throw-away costs.



The new alignment will maintain a 10' wide outside shoulder and a 4:1 foreslope.

Right of way does not appear to be required for this project with the above approach.

III. ALTERNATIVE EVALUATION

A. Operational Analysis
Current conditions contribute delays causing leading to an estimated $70,000/year in additional costs. Additional analysis will be completed and presented in the Interchange and Operation Report (IOR), which will be forthcoming.

B. Crash Analysis
Preliminary predictive safety analysis estimates indicate a potential for a 15-20% crash reduction with the proposed improvement. Additional analysis will be completed and presented in the Interchange Justification and Operation Reports, which will be forthcoming.

C. Construction Sequence
All work on this project will be awarded to one prime contractor. Work will be staged and expedited as needed to minimize impacts to traffic, maintaining at least one lane of traffic at all times. Consideration should be given to tying this project to project IM-NHS-080-3(290)118—03-25, which is constructing the widening work west of 60th St.

D. ADA/Complete Streets Considerations
This project is limited to I-80; no ADA or Complete Street considerations are pertinent to this project.

E. Special Considerations
Survey is needed for this project.

F. Schedule

The project is being developed for a December 2024 letting as follows:

Event Description	Finish Date
D00 - Pre-Design Concept	3/18/2021
TE0 - Desktop Review	4/2/2021
U00 - Preliminary Utility Review	4/2/2021
W00 - Preliminary Wetland Review	4/2/2021
D01 - Survey Plan and Photogrammetry (DTM)	6/4/2021
A01 - Approval of DOT Commission - Inclusion in 5-Year Program	6/8/2021
T01 - Existing ROW, Property and Sections Lines in CADD	8/27/2021
D02 - Design Field Exam	10/8/2021
D03 - Plans for Preliminary Bridge	10/29/2021
H00 - Cultural Resources Assessment	11/12/2021
IJR3 - Interchange Justification Report by District	11/12/2021
NE10 - Signed PCE	12/10/2021
B02 - Drainage Design and Miscellaneous Layout to Office of Design	12/30/2021
D05 - Plans to Right Of Way	1/14/2022
IJR5 - Interchange Justification Report Approval	1/28/2022
U02 - Project Notification to Utilities	2/11/2022
F03 - Final Regulated Materials Review	2/18/2022
R01 - Right Of Way Layout	4/15/2022
R00 - Plot Plans and Summary Sheets to District	4/15/2022
P09 - Public Information Meeting (PIM)	6/14/2022
T02 - Acquisition Plats and Legal Descriptions	7/1/2022
U03 - 1st Plan Submittal to Utilities	8/12/2022
R02 - Right Of Way Appraisal	9/30/2022
R03 - Right Of Way Negotiation	12/30/2022
U04 - 2nd Plan Submittal to Utilities	4/6/2023
S03 - Soils Design Complete	4/7/2023
R04 - Right Of Way Acquisition	6/30/2023
U06 - Notice to Proceed to Utilities	7/5/2023
DM5 - Design Methods Turn-In	8/29/2023
U07 - Utility Bid Attachment	10/3/2023
D08 - Final Grade and Pave Plans	10/3/2023
L03 - Letting-Combination Grade and Pave	12/17/2024
C02 - Construction Period (Field Work)	11/14/2025

G. Cost Estimate

The cost estimate for this work is $ 1,973,000. A detailed estimate, prepared with iPDWeb, is as follows:

Estimate Items Report
Version D00-Concept
Project IMX-080-3(299)122--02-77

Item Number	Item Description	Units	Quantity	Cost Used	Suggested Cost	Line Total
2115-0100000	MODIFIED SUBBASE	CY	3,600.000	$45.00		$162,000.00
2122-5190012	PAVED SHLD, PCC, 12"	SY	4,400.000	$90.00	$95.54	$396,000.00
2301-1034120	STD/S-F PCC PAV'T, CL C CL 3I, 12"	SY	5,300.000	$70.00	$66.75	$371,000.00
2528-8445110	TRAFFIC CONTROL	LS	1.000	$100,000.00	1.39%	$100,000.00
2533-4980005	MOBILIZATION	LS	1.000	$75,000.00	5.50%	$75,000.00
PCT-010-010	EARTHWORK (010-010)	% of Project	1,930,991.480	10.00%	8.30%	$193,099.15
PCT-040-010	TEMPORARY EROSION CONTROL (040-010)	% of Project	1,930,991.480	5.00%	1.07%	$96,549.57
PCT-999	UNQUANTIFIED	% of Project	1,930,991.480	30.00%		$579,297.44
					Total:	**$1,972,946.16**

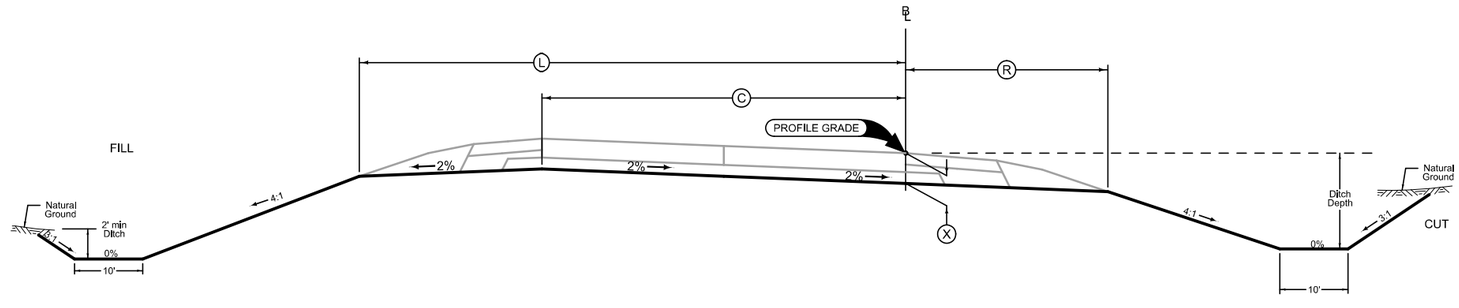
J. Program Status

This project is not yet programmed but should be placed on the monitor list for FY 2025.

Cc:

C. Purcell
S. J. Megivern
M. Nop
S. Majors
J. W. Laaser-Webb
E. C. Wright
N. M. Miller
B. E. Azeltine
S. Anderson
K. K. Patel
D. R. Claman
C. Brakke
E. Engle
V. Brewer
J. Garton
B. Ellis
A. Smyth
A. Yates
G. Kretlow
M. J. Kennerly
J. S. Nelson
M. A. Swenson
K. Brink
W. A. Sorenson
M. E. Ross
C. C. Poole
T. D. Crouch
D. Stokes
S. Godbold
B. Beavers
T. Hanson
M. Hobbs
M. Donovan
J. Lavine
S. Nixon
D. Mulholland
W. Mayberry
K. D. Nicholson
B. Walls
R. A. Younie
D. L. Newell
D. E. Sprengeler
A. A. Welch
B. Hofer
S. J. Gent
B. Meyer
J. Vortherms
M. Solberg
F. Todey
J. Narigon
J. Scott
A. Loonan
P. Lafleur, FHWA
B. Bradley
T. Hildreth

LOCATION				DIMENSIONS					
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(C) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
				XX	XX	23.5'	XX	XX	XX



RAMP GRADING

G_1R_Grade
MODIFIED

Section view is in direction of traffic.

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer such as intersections or superelevated curves.

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER B.1

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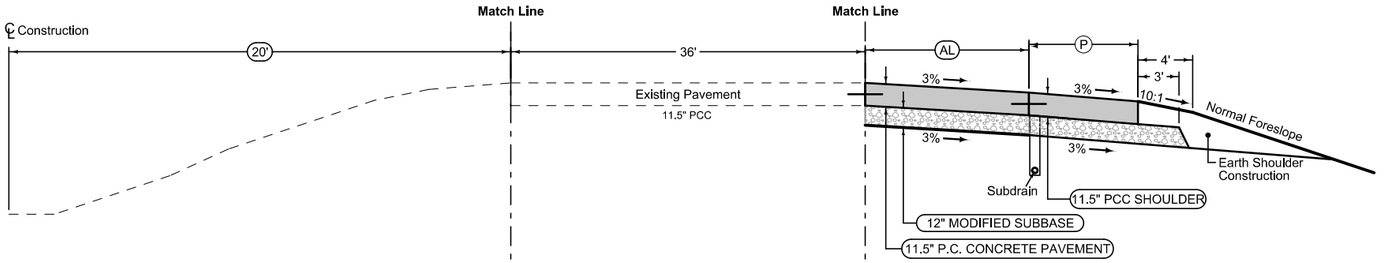
4E_
10-19-10



Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_
10-18-16

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WB			12'

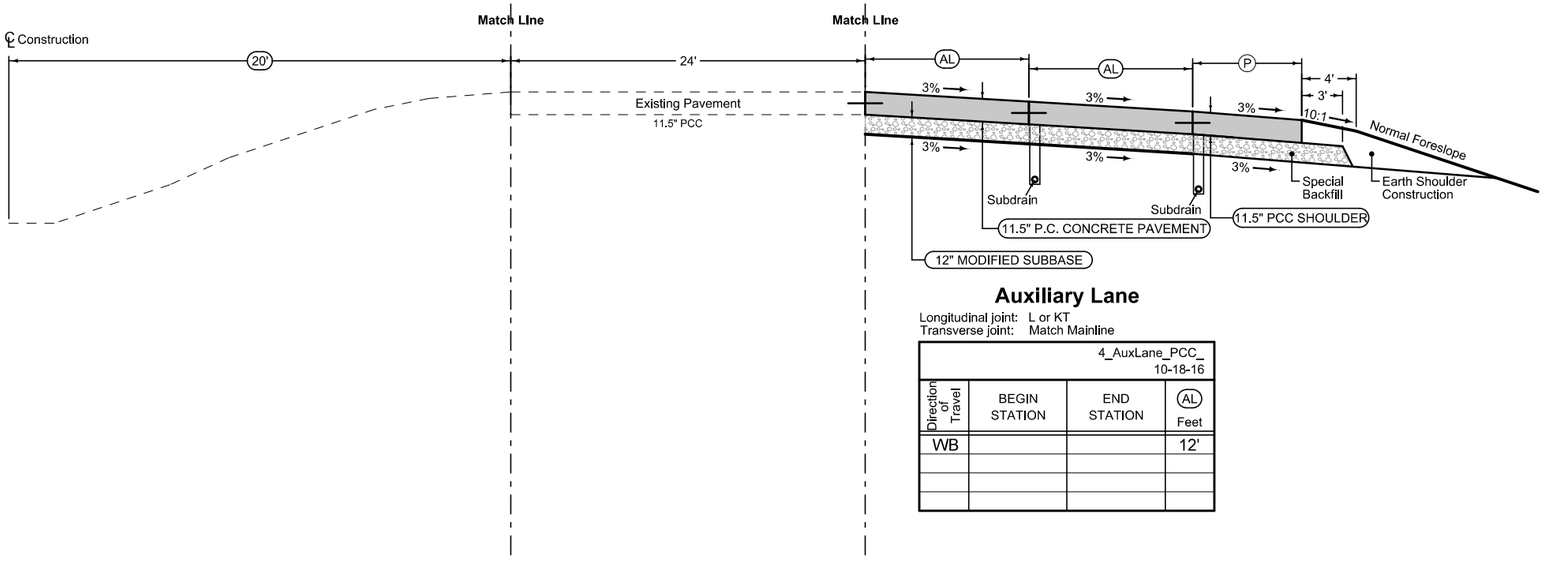
Auxiliary Lane
Full Depth Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

4_AL_Shldr_FullPCC_
04-21-20

(P) Feet
12'

4E_
10-19-10



Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_
10-18-16

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WB			12'

Auxiliary Lane
Full Depth Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

4_AL_Shldr_FullPCC_
04-21-20

(P) Feet
12'

See Tab 100-24 or 100-25 for pavement quantities.

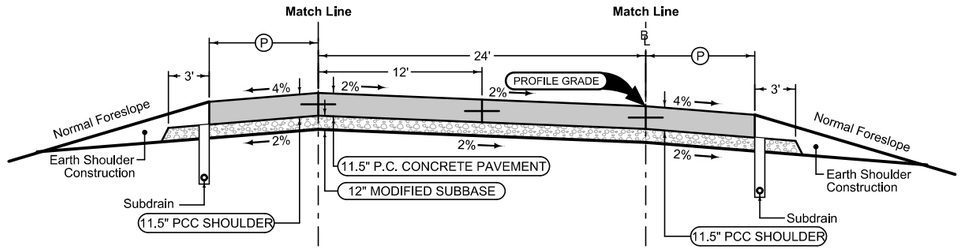
See Tab 112-9 for shoulder quantities.

I-80 West Bound

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

		2_P_FullPCC_ MODIFIED
STATION TO STATION		(P) Feet
		6'



Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 17' spacing.
Longitudinal joint: L-2

	2RP_ 04-21-20
BEGIN STATION	END STATION

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

		2_P_FullPCC_ MODIFIED
STATION TO STATION		(P) Feet
		10'

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

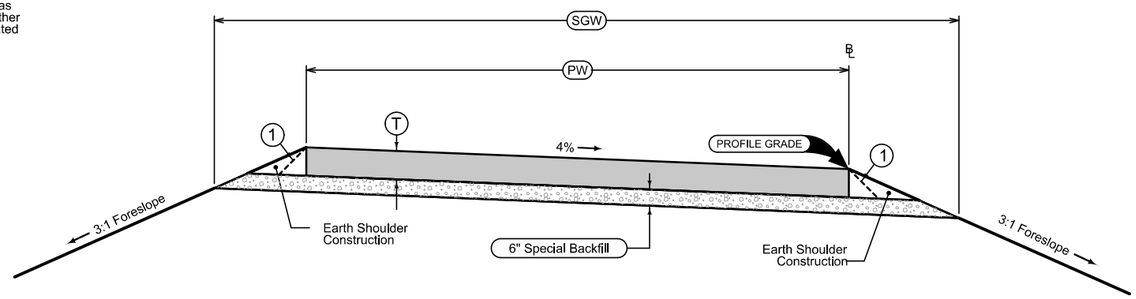
Ramp C

LOCATION			DIMENSIONS						6" Special Backfill	Earth Shoulder Construction
ROAD IDENTIFICATION	STATION TO STATION		HMA			PCC				
			(PW) Feet	(T) Inches	(SGW) Feet	(PW) Feet	(T) Inches	(SGW) Feet	Tons/Station	Station
Ramp C				12			9			

Quantity calculations based on vertical pavement edges.

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

(1) Possible HMA 1:1 slope



DETOUR PAVING

D_Detour
10-21-14

SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Existing Utility Access (Manhole)
- Fire Hydrant
- WH Water Hydrant (Rural)
- Septic Tank
- C Cistern
- LP L.P. Gas Tank (No Footing)
- UST Underground Storage Tank
- Latrine
- Satellite TV Dish
- WHU Water Hook Up
- RT Radio Tower
- TA Tower Anchor
- Guardrail (Beam or Cable)
- GP Guard Post (one or two)
- Guard Post (over two)
- FP Filler Pipe
- GV Gas Valve
- WV Water Valve
- SL Speed Limit Sign
- MM Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box

UTILITY LEGEND

- E1 – EL1D, Mid American Energy - Quality D
- E5 – EL5D, Iowa DOT - Quality D
- FO13 – FO13D, Wells Fargo Home Mortgage - Quality D
- FO – FO2D, Lumen (Century Link) - Quality D
- FO4 – FO4D, Aureon Network Services - Quality D
- FO8 – FO8D, City of West DesMoines Traffic - Quality D
- G – GL1D, Mid American Gas - Quality D
- TV – TV1D, Mediacom - Quality D

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING	**Design Color No.**	
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

- Reference Point / Station — Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- C/A Access Control
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES D, E, F, & K)

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER D.1	REVISED

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Coordinate Beginning of Paving

Paving by other Plan
IM-NHS-080-3(281)118--03-25

BEGIN PAVING
STA 1291+80.50
OFF -56.00'

Sta. 1294+68.21, 95 LT
24" X 252' RCP
Extend Lt

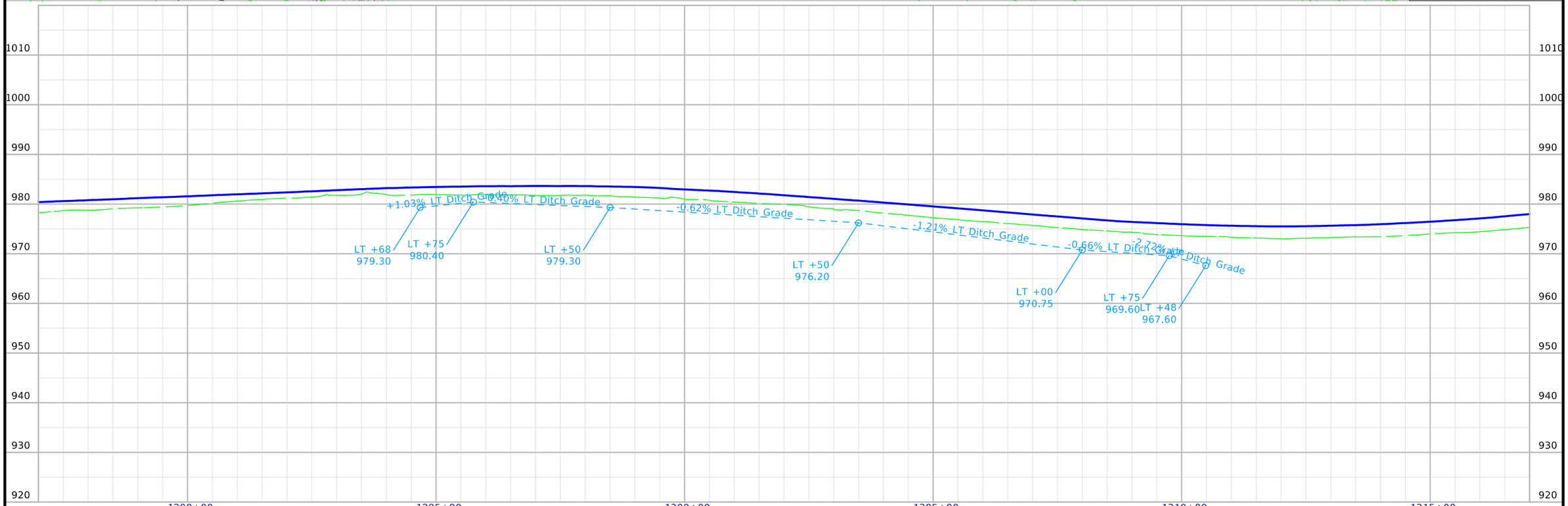
Polk Co.
Walnut TWP.
T-78N R-25W
SEC. 6

Sta. 1294+11.32, 91 RT
24" X 228' RCP
U.A.C.

Sta. 1312+03.34
24" X 61' RCP
U.A.C.

Sta. 1315+58.93
Skew 10° RT AH
4.0' X 5.5' X 220'
RCB
D.A.=5.5 A-R
U.A.C.

ML080



FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER D.2

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Survey Information

SURVEY INDEX

County: Dallas
PIN: 20-77-080-020
Project Number: IMX-080-3(299)122--02-77
Location: Westbound I-80 Ramp at W I-35/235 Interchange
Type of Work: Slide Repair
Project Directory: 5103401021

Party Personnel

Jody Budde - PLS
Wes Shimp – PLS
Jon Miranda – Party Chief
Ben Sullivan – Party Chief
Dave Overman - Party Chief
Aaron Paulsen - Party Chief
Lee Budde - Party Chief
Levi Suhr – Assistant Survey Party Chief
Jason Flaherty - Assistant Survey Party Chief
Scott Dillavou - Assistant Survey Party Chief

Date(s) of Survey

Begin Date	08/21/2021
End Date	09/30/2021

General Information

Measurement units for this survey are US survey feet. This survey is for converting the ramp from SB/WB I-35/80 to WB I-80 in the Southwest Mixmaster (SWMM) from the existing dual-lane, inside-merge entrance ramp to a dual lane entrance with dual auxiliary lanes. Project datum and control information is provided by Design Survey Office. This project is a Partial DTM with Photo control. This survey request was for the I-80 corridor only and partial interchange for I-80 / I-35 interchange for west section of the interchange. Project horizontal datum is NAD83 (2011), Iowa RCS Zone 8 (Ames – Des Moines).

Vertical Control

Vertical datum for this survey is relative to NAVD88 (computed using Geoid12B for the new FENO for this project: FENO 11. This survey consisted of observing one new, and two existing FENO 1-meter rod monuments using minimum 2hr initial static observations along with data from 4 Iowa RTN CORS sites: Des Moines (IADM), De Soto (IADS), Martensdale (IAMD) and Boone (IABN).

Two existing FENOs set by Foth during the prior 2019 I-80 Dallas County survey were observed and included for overall control adjustment:

FENO 9 has a published Elv of: 964.37 usft

FENO 10 has a published Elv of: 973.17 usft

The final vertical adjustment results show standard deviations were less than 0.02 ft. at 95% confidence level (2 sigma) for the new FENO monuments.

Horizontal Control

The project coordinate system for this survey is NAD83 (2011) Iowa RCS Zone 8 (Ames – Des Moines) US survey feet. This survey control is relative to IaRTN reference stations. IaRTN Reference Station coordinates are relative to the National Reference Station network datum: NAD83 (2011) for Epoch 2010.00. Coordinates were determined by observing each mark for 120 minutes minimum for the first observation and 35 minutes minimum for the second observation with appropriate time spans between each session.

For the August 2021 survey portion which added FENO monument FENO11, the same three IaRTN CORS stations were utilized, in addition to Boone (IABN). FENO9 and FENO10 were re-observed as part of the establishment of the new FENO11 mark to complete out the survey project control network.

The horizontal standard deviation of these adjusted observations was less than 0.02 ft. at 95% confidence level (2 sigma).

Alignment Information

Alignment for this survey is a retrace of Metric As-built plans I-80-3(18)125--1-77. Stationing was converted from metric to English. Stationing was held at POT station 1293+12.65 and carried ahead without station equation throughout the project.

Survey stationing relates to As-built plan stationing as follows:

POT Sta. 394+14.574 m = 1293+12.65 ft Plan
= Survey POT Sta. 1293+12.65 ft

POT Sta. 396+14.574 m = 1299+68.815 ft Plan
= Survey POT Sta. 1299+68.80 ft

POT Sta. 405+23.547 m = 1329+51.00 ft Plan
= Survey POT Sta. 1329+50.92 ft

POT Sta. 411+07.574 m = 1348+67.10 ft Plan
= Survey POT Sta. 1348+66.98 ft

y D

ality D

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points
Primary control is for use with RTK base stations and for RTN validation.
Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00
VERT. DATUM: NAVD88
Ia. Regional Coordinate System Zone 08

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 08
Project Control Marks are Bench Marks

Pt. Num	N	E	Elevation	Desctiption
FENO9	7488897.18	18476761.16	964.37	FENO Type monument. 4 ft North of chainlink fence, 43 feet SW of Light pole. 55 ft South from edge of pavement. 30 feet NW of edge of parking lot
FENO10	7489182.34	18481417.43	973.17	FENO Type monument. 9 ft South of chainlink fence, 11 ft NW of utility manhole. 48 ft North of edge of pavement and 327 ft West of Luminaire
FENO11	7489208.11	18487716.66	996.20	FENO Type monument. 16 ft West of 42nd Street centerline. 91 ft SW of light pole. 21 ft NW of bridge deck Centerline of Bridge over I-235. 134 ft SE of parking lot light pole

ALIGNMENT COORDINATES

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
1	SURML080	252+59.883 R1	7489020.59	18475720.46															
2	SURML080	293+12.650 R1	7489034.77	18479773.20															
3	SURML080	299+68.803 R1	7489037.02	18480429.35															
4	SURML080	329+50.923 R1	7489047.25	18483411.45															
4	SURML080	348+66.977 R1	7489053.82	18485327.50															
1	RPC080	302+23.420 R1	7489105.94	18480697.99															
2	RPC080							307+23.420 R1	7489107.65	18481197.99	308+77.891 R1	7489108.18	18481352.46	310+31.750 R1	7489132.43	18481505.02			
3	RPC080							310+31.750 R1	7489132.43	18481505.02	313+37.188 R1	7489180.36	18481806.67	316+32.214 R1	7489355.11	18482057.18			
4	RPC080	328+21.253 R1	7490035.36	18483032.41															

SPIRAL OR CIRCULAR CURVE DATA

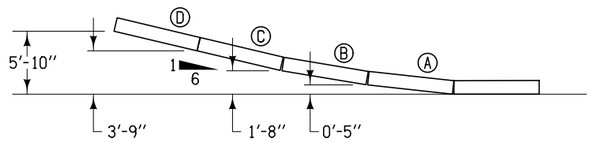
Name	Location	ΔSCS	Horizontal Alignment Data												Remarks
			Spiral Data								Curve Data				
			θS	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	ΔC	T	L	R	E	
C1	RPC080										8.833°	154.471	308.330	2000	5.956	
C2	RPC080										25.868°	305.438	600.464	1330	34.622	

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

- Pavement Removal
- Proposed Granular Subbase
- Proposed Special Backfill
- Temporary Barrier Rail
- Proposed Granular Shoulder
- Temporary Shoulder
- Existing Shoulder Strengthening
- Permanent Barrier Rail
- Channelizing Device



BARRIER OFFSETS FOR FLARE SECTIONS

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

SHADING	Design Color No.	
Gray, Light	(48)	Traffic, Paved
Gray, Med	(48)	Traffic, Granular
Gray, Med	(80)	Proposed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

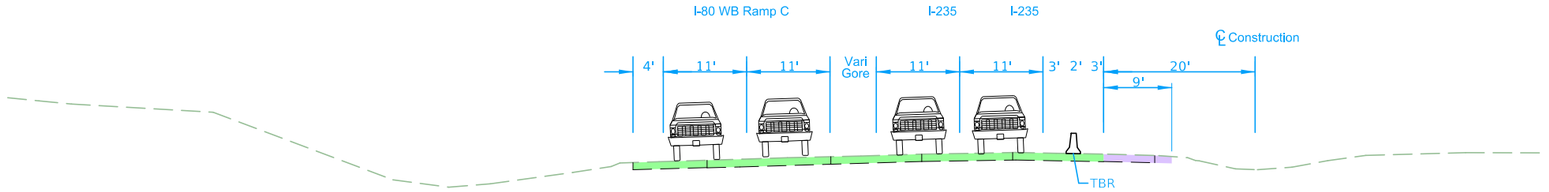
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

- Channelizing Device
- Drum
- Temporary Lane Separator
- Tubular Marker
- Channelizer Marker
- Concrete Barrier Marker
- Delineator
- Temporary Barrier Rail
- Pavement Removal
- Sand Barrel Layout
- Crash Cushion (Temp or Perm)
- Traffic Signal
- Flagger
- Temporary Floodlighting
- Traffic Sign
- Type III Barricade
- Type A Warning Light
- Direction of Traffic
- Safety Closure
- Lane Identification (1)

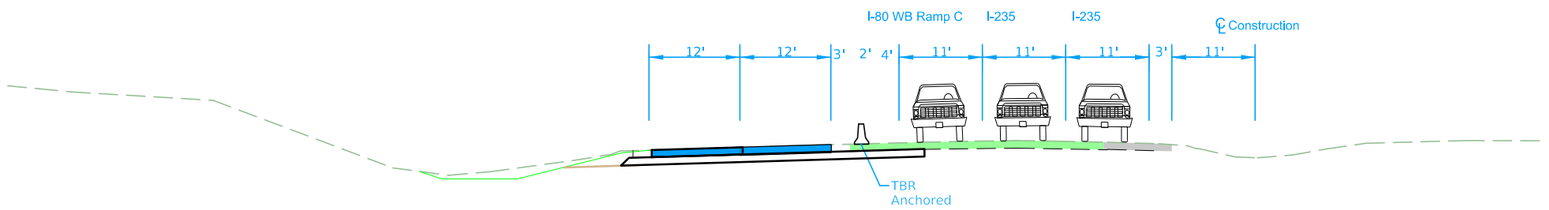
NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES J)



STA. 1305+00.00 - STAGE 1



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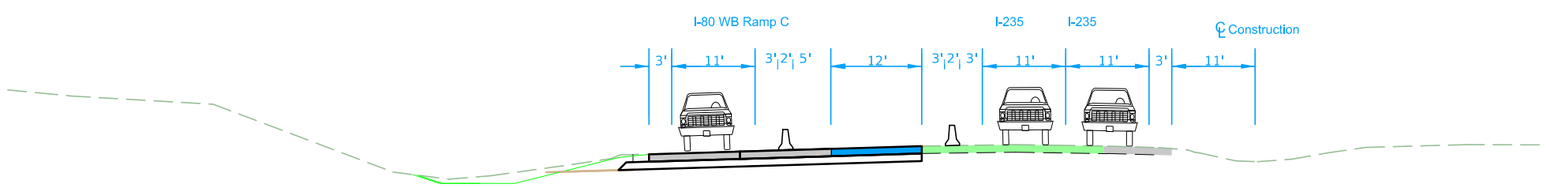

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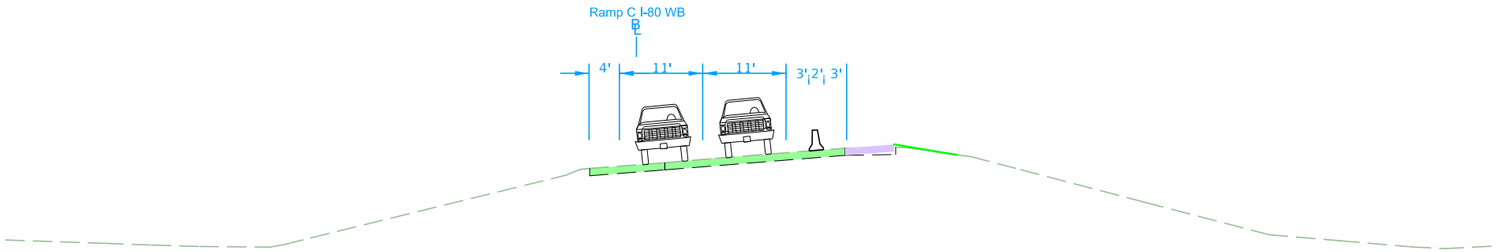

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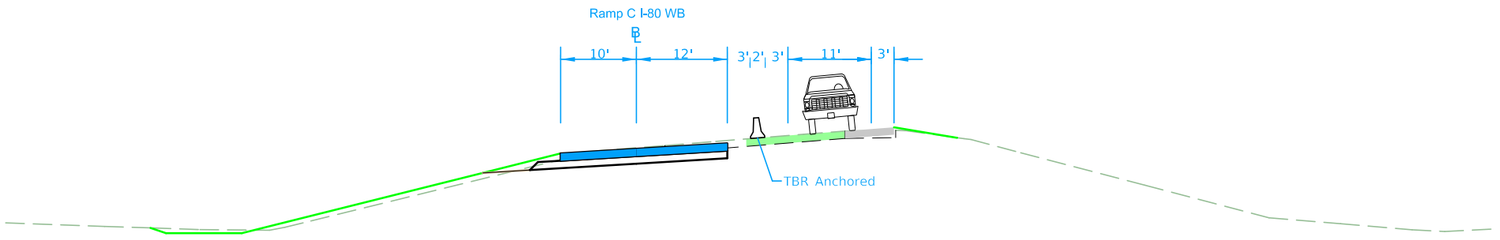

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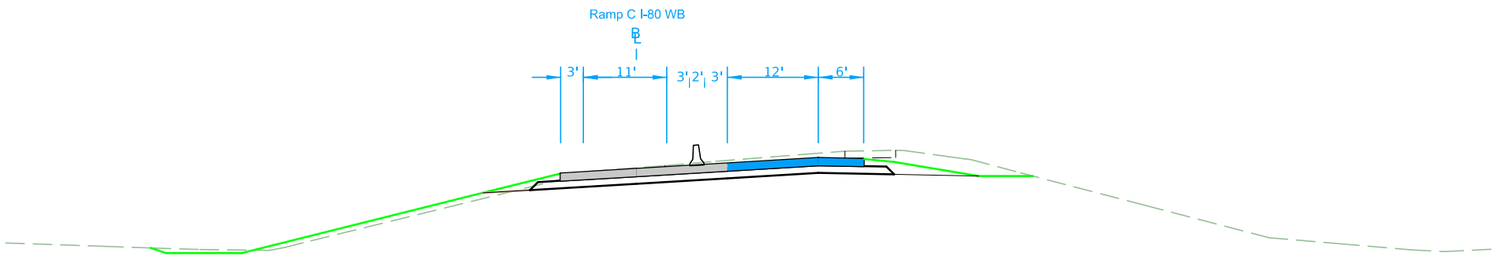

STA. 41315+00.00 - STAGE 3

60th St Ramp C

60th St Ramp B

60th St

1285+00

1290+00

1295+00

1300+00

11'
11'
11'

Remove Cable guardrail
Add Steal beam guardrail

Constructed by other Plan

0 FEET 50

STAGE 1

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER J.5

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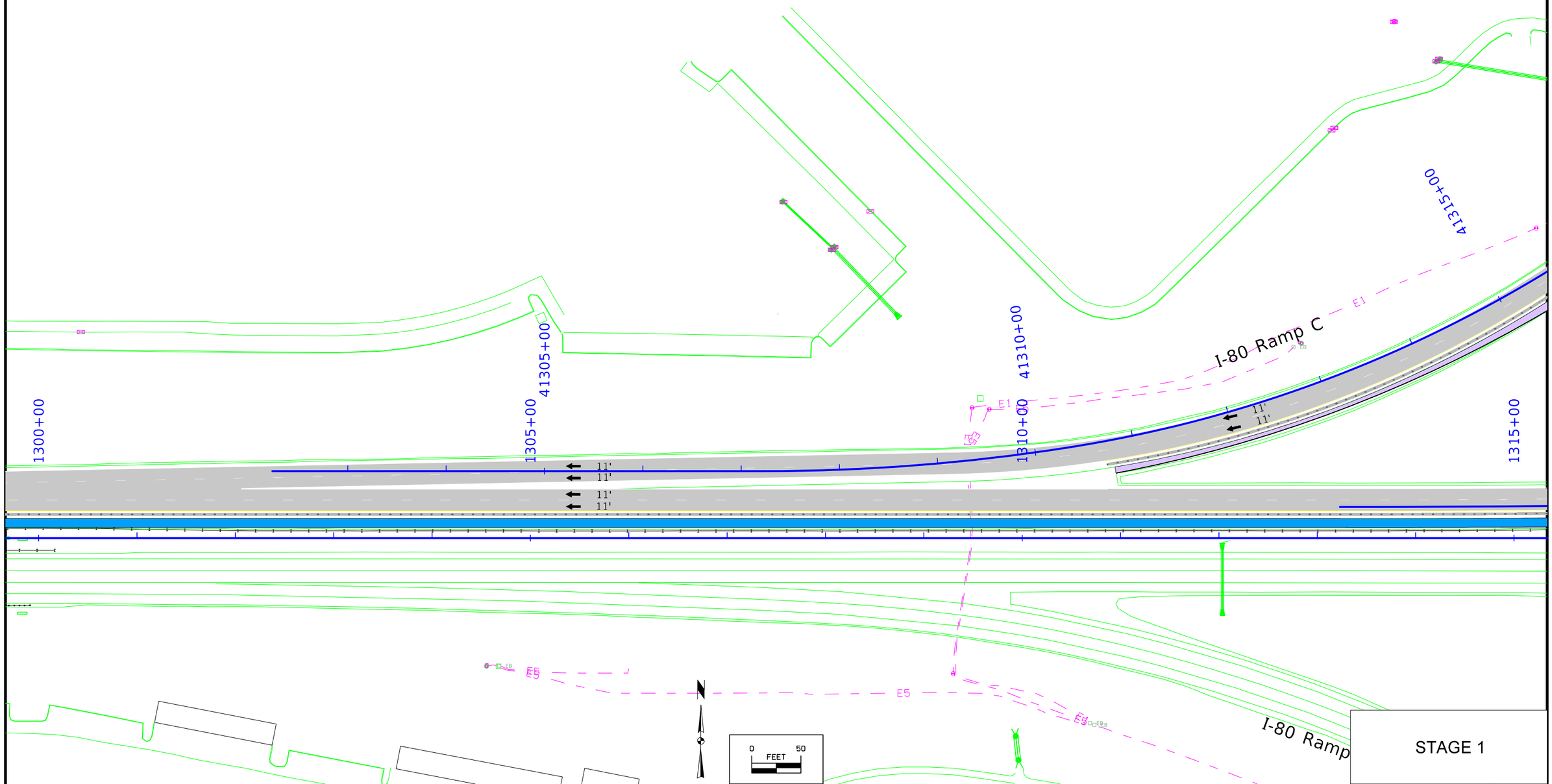

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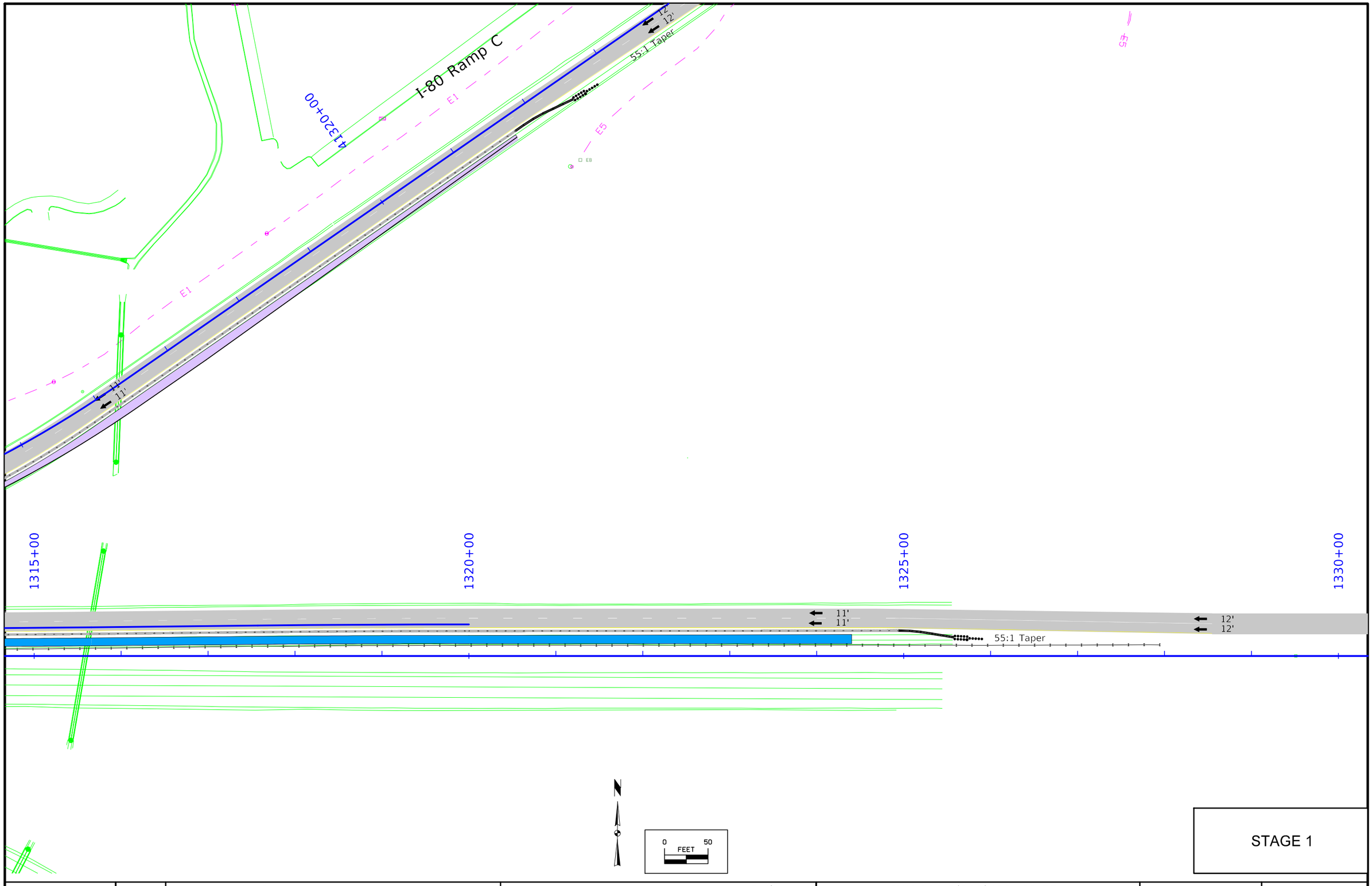

STAGE 1

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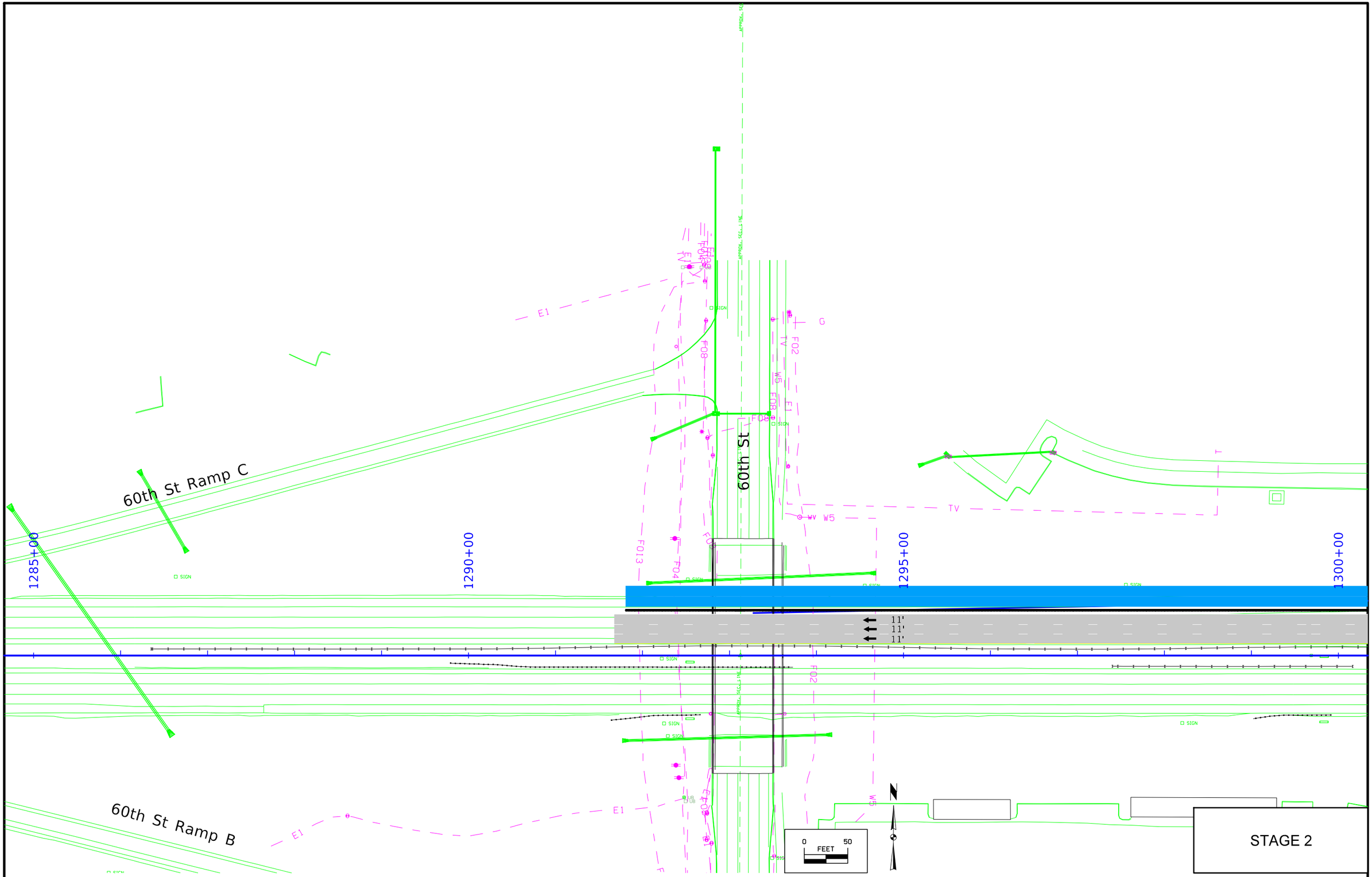

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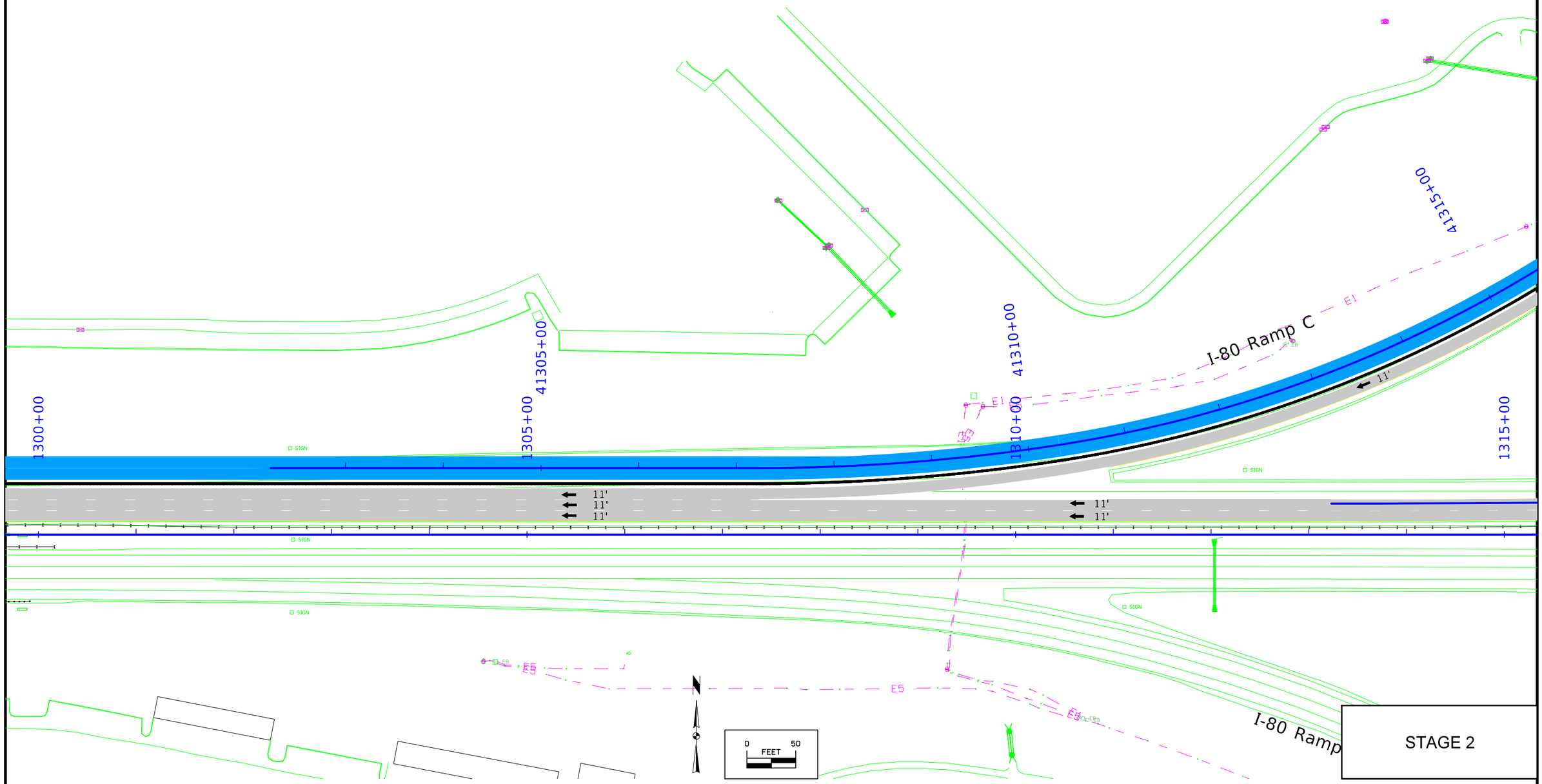

STAGE 2

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER J.9

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I-80 Ramp C

1320+00

Station: 41321+70.00
Offset: 12.00sf Rt.

Station: 41321+70.00
Offset: 24.00sf Rt.

12'

440'

Station: 41317+30.00
Offset: 20.00sf Rt.

98'

Station: 41317+30.00
Offset: 31.00sf Rt.

55:1 Taper

11'

E1

E3

E5

EB

SIGN

1315+00

1320+00

1325+00

1330+00

55:1 Taper

11'

11'

12'

12'

0 50
FEET

STAGE 2

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER J.10

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41315+00

41320+00

41325+00

41330+00

I-80 Ramp C

98'

440'

660'

Station: 41317+30.00
Offset: 20.00sf Rt.

Station: 41321+70.00
Offset: 12.00sf Rt.

Station: 41328+30.00
Offset: 0.00sf Lt.

11'

12'

12'

55:1 Taper

55:1 Taper

Station: 41317+30.00
Offset: 31.00sf Rt.

Station: 41321+70.00
Offset: 24.00sf Rt.

Station: 41328+30.00
Offset: 12.00sf Rt.

Station: 41328+30.00
Offset: 12.00sf Rt.

E1

E5

EB

1320+00

11'

11'

0 FEET 50

STAGE 2

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER J.11

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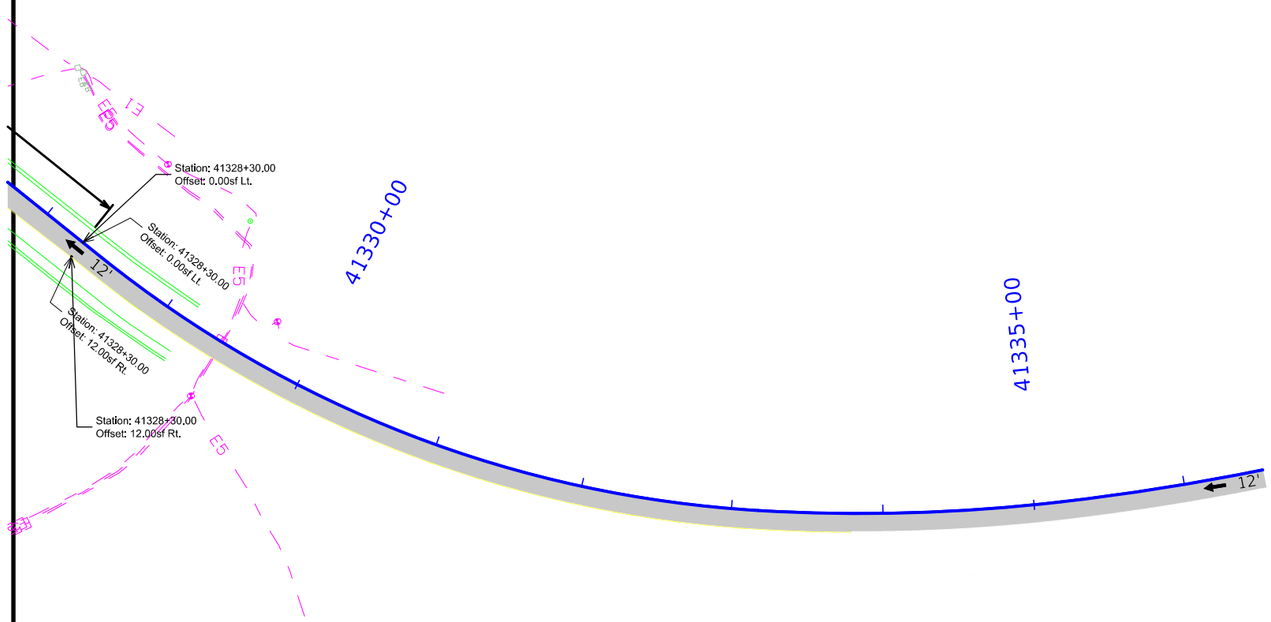

0 50 FEET

STAGE 2

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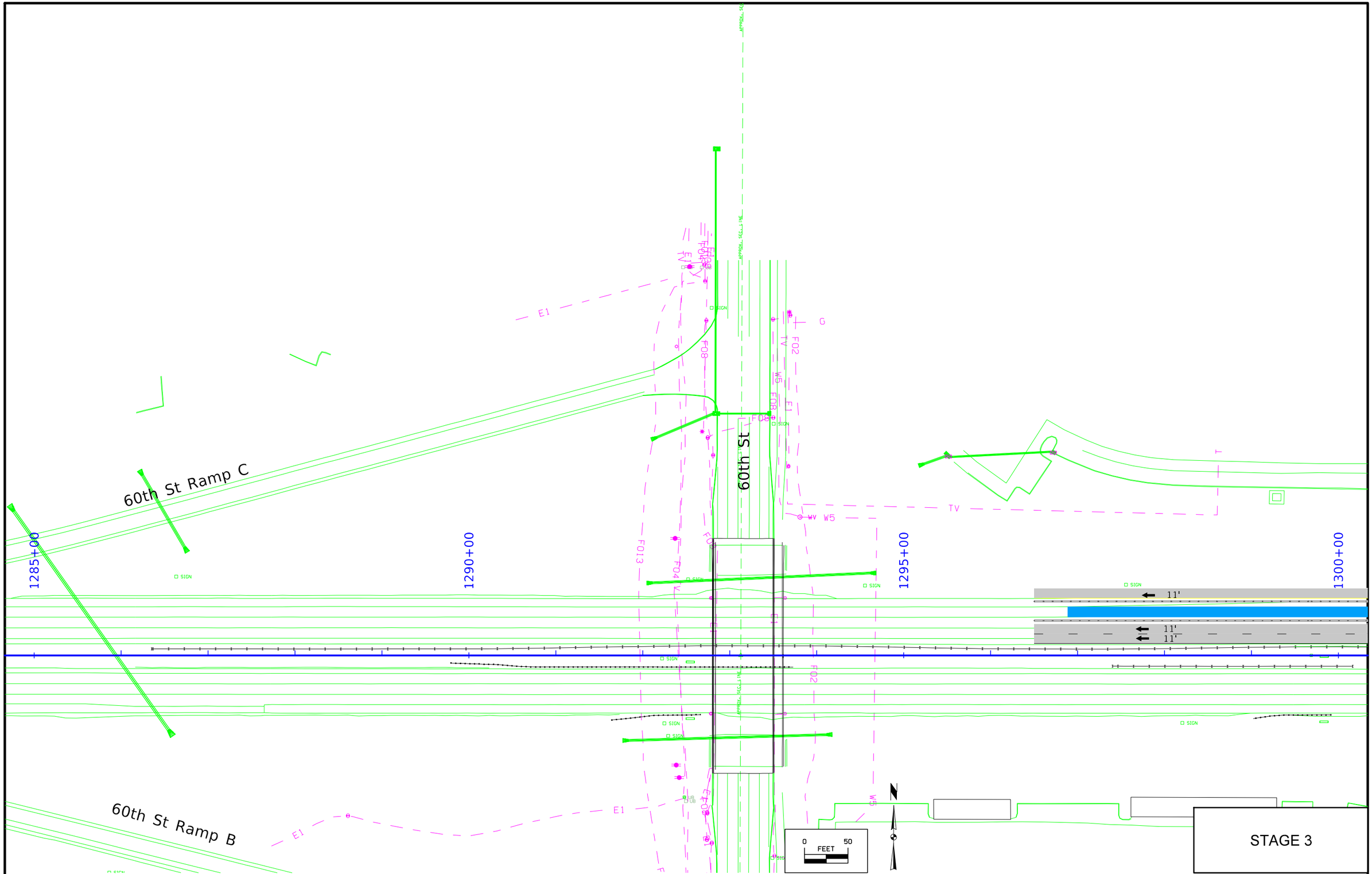

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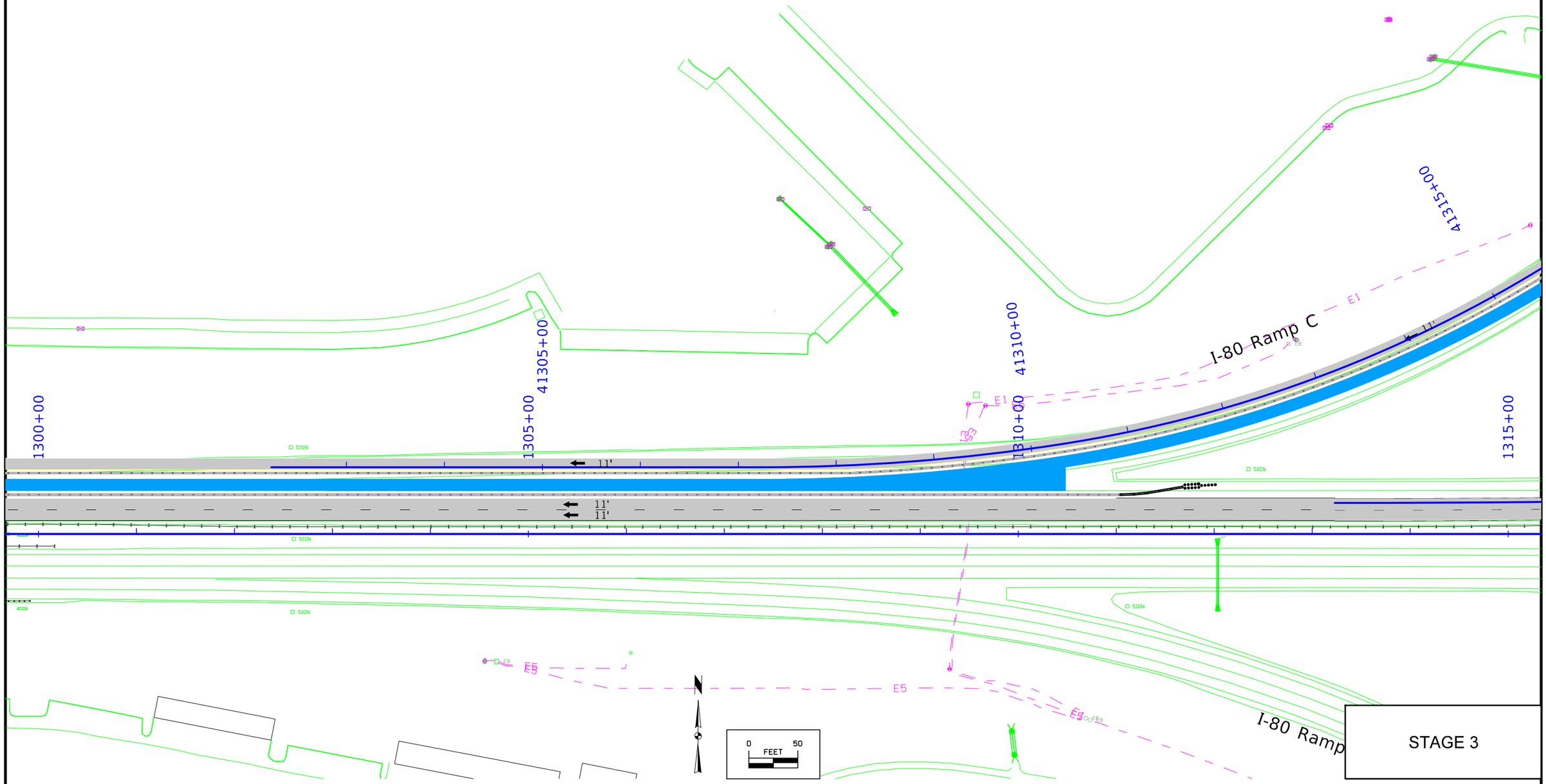

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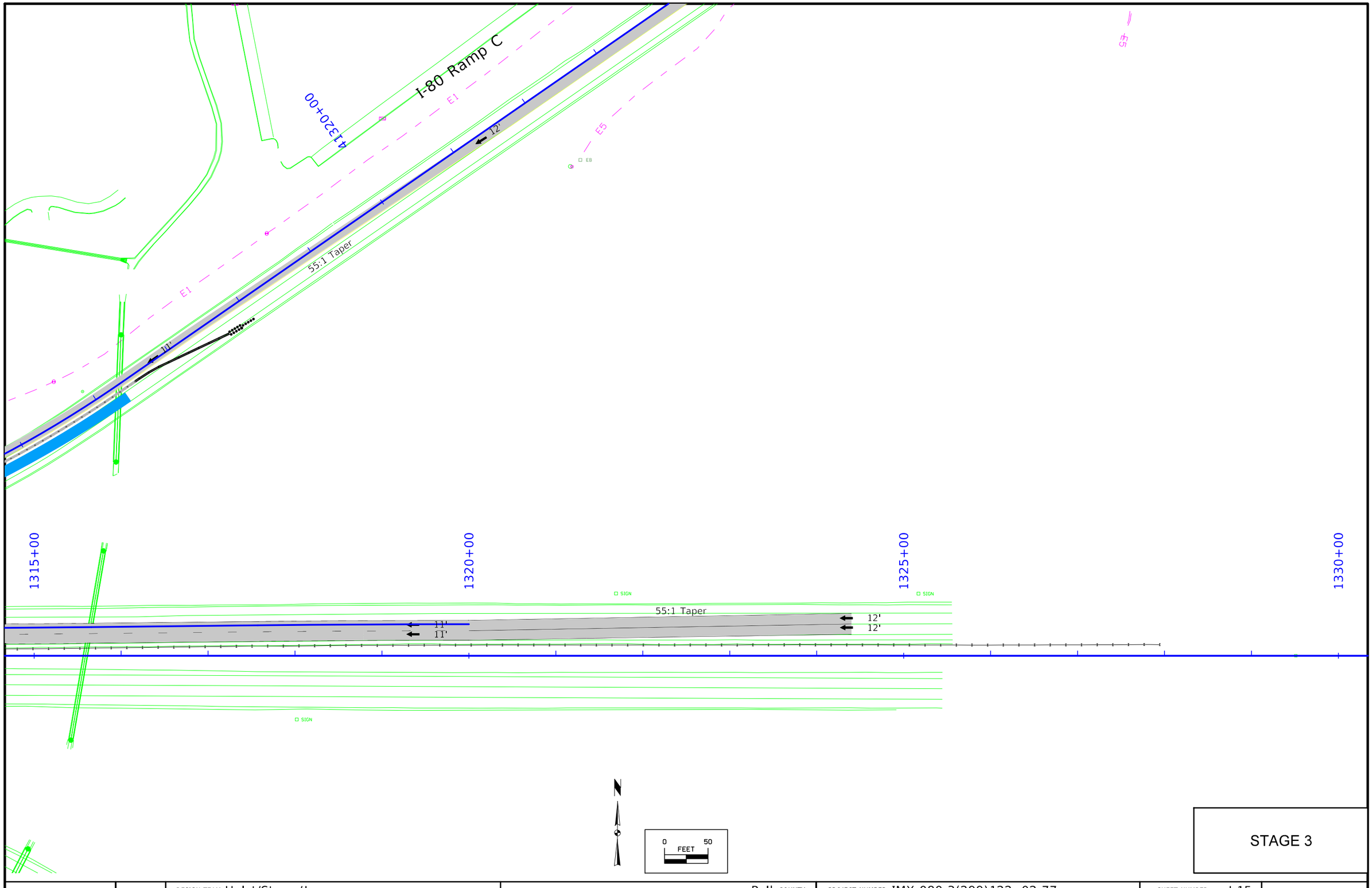

STAGE 3

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER J.15

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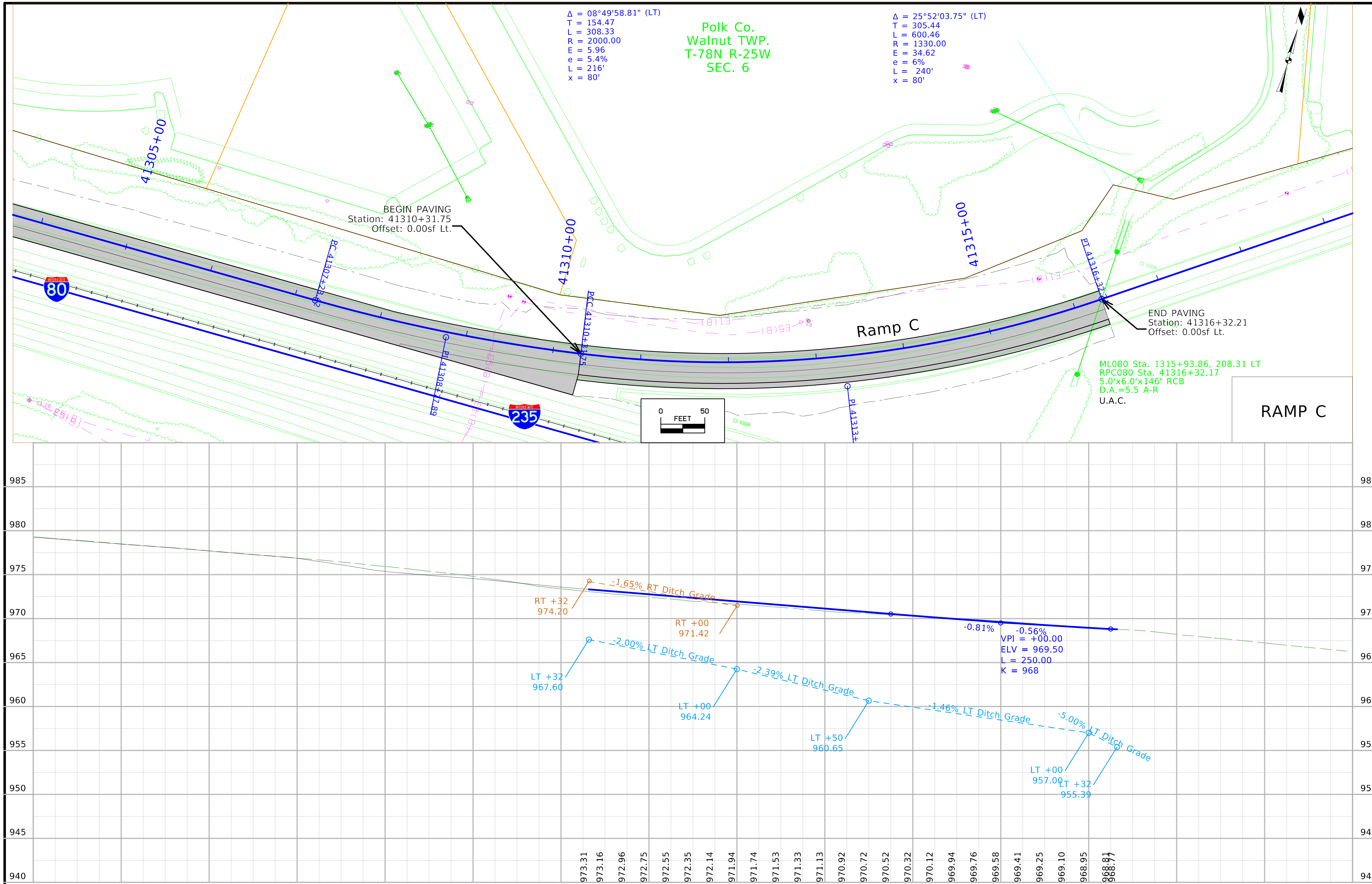

Δ = 08°49'58.81" (LT)
T = 154.47
L = 308.33
R = 2000.00
E = 5.96
e = 5.4%
L = 216'
x = 80'
Polk Co.
Walnut TWP.
T-78N R-25W
SEC. 6
Δ = 25°52'03.75" (LT)
T = 305.44
L = 600.46
R = 1330.00
E = 34.62
e = 6%
L = 240'
x = 80'
41305+00
41310+00
41315+00
BEGIN PAVING
Station: 41310+31.75
Offset: 0.00sf Lt.
END PAVING
Station: 41316+32.21
Offset: 0.00sf Lt.
Ramp C
80
235
ML080 Sta. 1315+93.86, 208.31 LT
RPC080 Sta. 41316+32.17
5.0'x6.0'x146' RCB
D.A.=5.5 A-R
U.A.C.
RAMP C
0 FEET 50
RT +32
974.20
RT +00
971.42
-1.65% RT Ditch Grade
-0.81%
-0.56%
VPI = +00.00
ELV = 969.50
L = 250.00
K = 968
LT +32
967.60
-2.00% LT Ditch Grade
LT +00
964.24
-2.39% LT Ditch Grade
LT +50
960.65
-1.46% LT Ditch Grade
-5.00% LT Ditch Grade
LT +00
957.00
LT +32
955.39
985
980
975
970
965
960
955
950
945
940
973.31
973.16
972.96
972.75
972.55
972.35
972.14
971.94
971.74
971.53
971.33
971.13
970.92
970.72
970.52
970.32
970.12
969.94
969.76
969.58
969.41
969.25
969.10
968.95
968.81
968.77
41305+00
41306+00
41307+00
41308+00
41309+00
41310+00
41311+00
41312+00
41313+00
41314+00
41315+00
41316+00
41317+00
41318+00
41319+00

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER K.1

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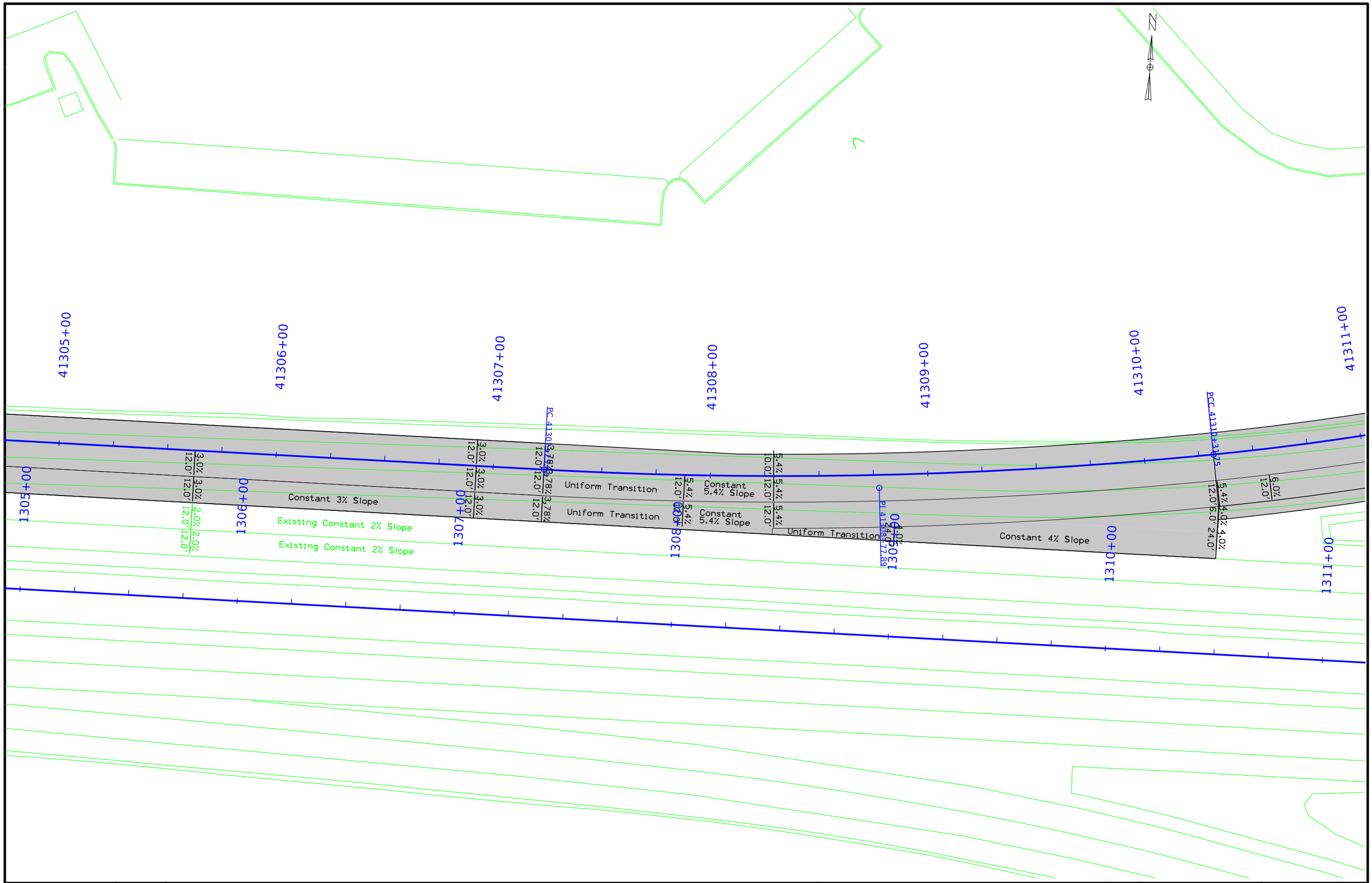

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER L.1

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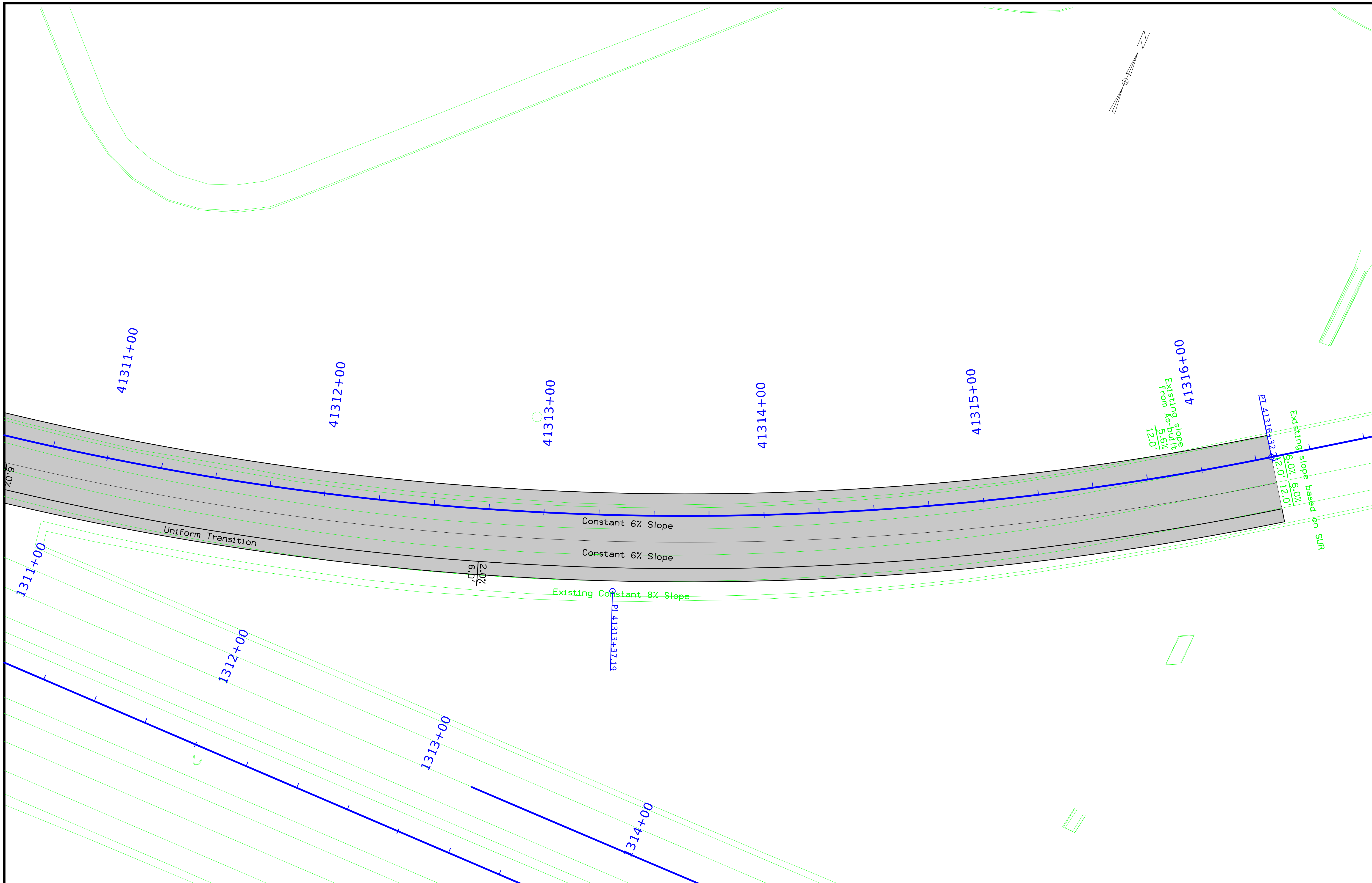
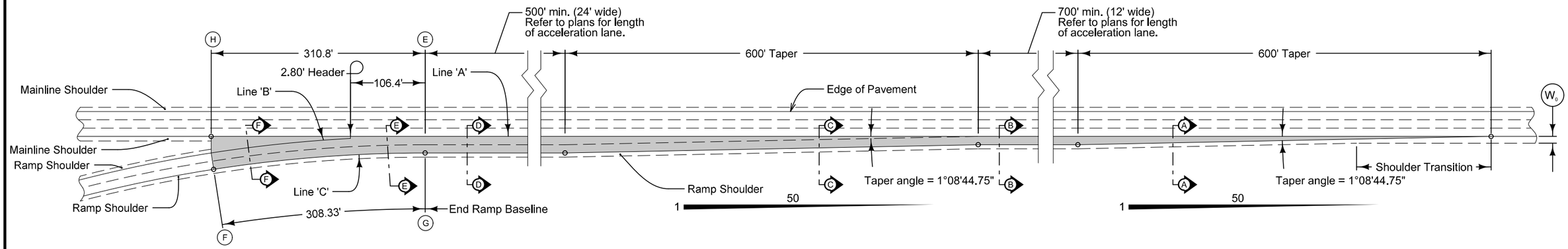
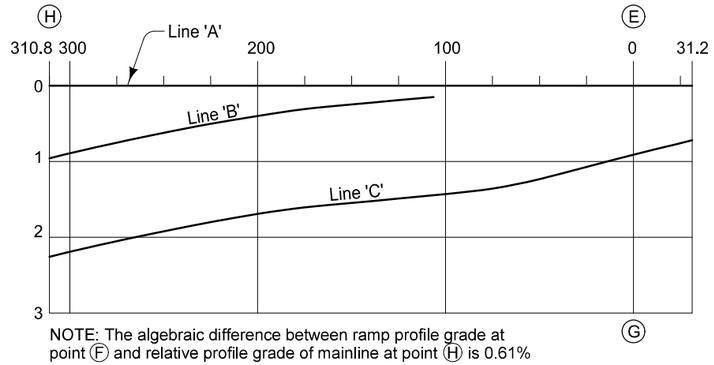


FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus		Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER L.2

7:44:06 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_L01.dgn



Curve Data
△ = 08°51'20.88"
D = 02°52'
R = 2000.00'
T = 154.87'
L = 308.33'
E = 5.99'



NOTE: The algebraic difference between ramp profile grade at point (F) and relative profile grade of mainline at point (H) is 0.61%

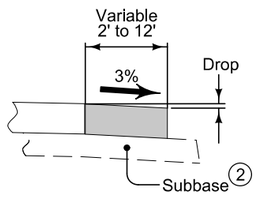
H

E

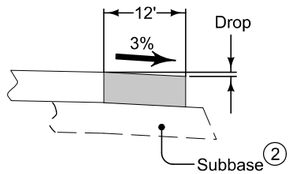
TABLE OF OFFSETS AND DROPS FOR 16' RAMP TAPER																			
DISTANCE FROM POINT (H) ALONG LINE 'A' (Ft.)		310.8	300	275	250	225	200	175	150	125	106.4	100	75	65	50	25	0	25	31.2
From Line 'A' To Line 'B'	OFFSET (Ft.)	24.00	22.36	18.77	15.50	12.55	9.91	7.58	5.57	3.86	2.80								
	SLOPE (%)	← Constant 4.0% Slope →							4.51	5.02	5.40								
	DROP (Ft.)	0.96	0.89	0.75	0.62	0.50	0.40	0.30	0.25	0.19	0.15								
From Line 'B' To Line 'C'	OFFSET (Ft.)	← Constant 24' Offset →																	
	SLOPE (%)	← Constant 5.4% Slope →																	
	DROP (Ft.)	← Constant 1.30' Drop →																	
From Line 'A' To Line 'C'	OFFSET (Ft.)											26.50	25.41	25.06	24.63	24.16	24.00	24.00	24.00
	SLOPE (%)											5.40	5.40	5.40	5.04	4.41	3.78	3.15	3.00
	DROP (Ft.)	2.26	2.19	2.05	1.92	1.80	1.69	1.60	1.55	1.49	1.45	1.43	1.37	1.35	1.24	1.07	0.91	0.76	0.72
DISTANCE FROM POINT (F) ALONG LINE 'C' (Ft.)		308.30	297.54	272.58	247.67	202.79	197.95	173.14	148.36	123.60	105.21	100.04	75.02	65.01	50.01	25.00	0.00		

F

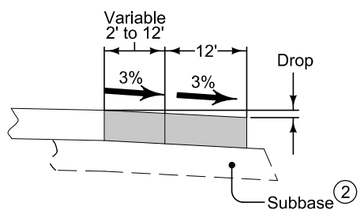
G



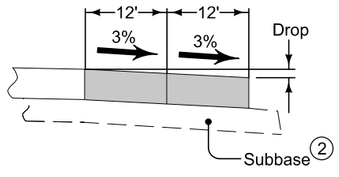
SECTION A-A



SECTION B-B



SECTION C-C



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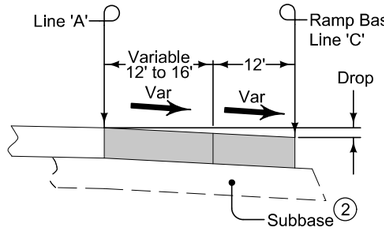
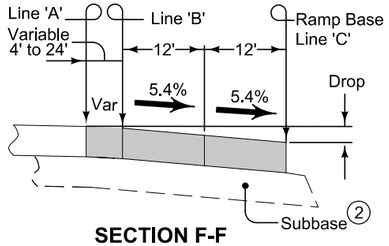


SECTION E-E



SECTION F-F

TABLE OF SHOULDER TRANSITION LENGTHS WITH 6' SHOULDER ON RAMP			
W_0	Shoulder Width beyond Edge of Mainline Pavement		
	8'	10'	12'
12'	NA	200'	300'

NOTE: W_0 is the width of the outside lane to the Edge of Pavement.

Construct ramp entrance pavement the same thickness as mainline pavement.

For joint detail, see PV-101.

(1) For header construction detail at the end of taper See Typical 7101 or Typical 7102.

(2) Construct subbase for ramp entrance pavement the same thickness as mainline subbase.

IOWA DOT

ROAD DESIGN DETAIL

REVISION	
2	04-21-20

533-05

SHEET 1 of 2

REVISIONS: Removed MODIFIED from the detail.

PARALLEL ACCELERATION TAPER FOR 24' RAMP (60 MPH DESIGN SPEED)

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER U.1

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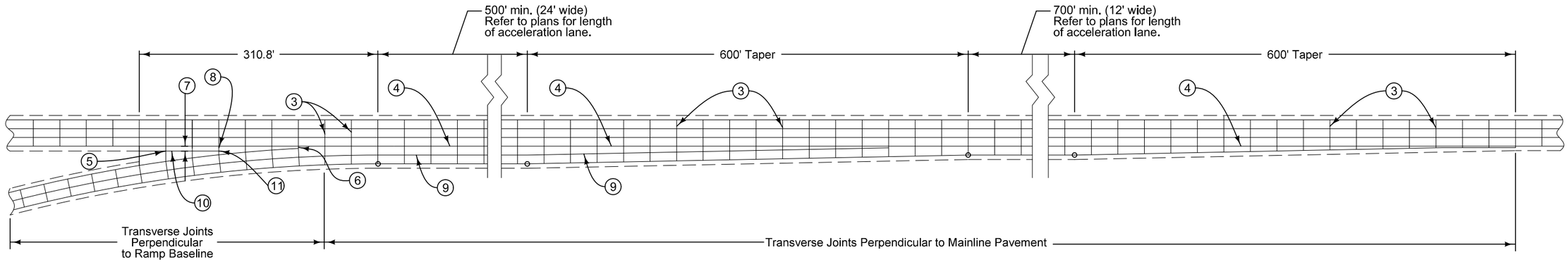

(3) 'CD ' Joints at 17' spacing.

(4) 'BT-2' or 'KT-2' Joint.

(5) 'C' Joint.

(6) 'B' Joint. 2' minimum, 4' maximum.

(7) 10' minimum or equal to mainline shoulder width.

(8) Construct transverse joints through the gore perpendicular to mainline pavement.

(9) 'L-2' Joint.

(10) 'C' Joint parallel to mainline pavement.

(11) 'B' or 'C' Joint. 2' minimum, 4' maximum.

IOWA DOT

ROAD DESIGN DETAIL

REVISION	
2	04-21-20

533-05

SHEET 2 of 2

REVISIONS: Removed MODIFIED from the detail.

PARALLEL ACCELERATION TAPER FOR 24' RAMP (60 MPH DESIGN SPEED)

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER U.2

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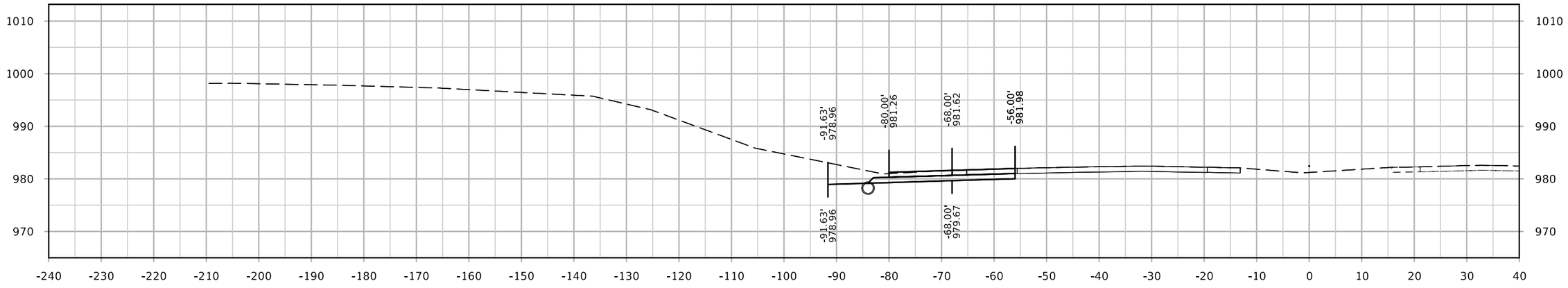
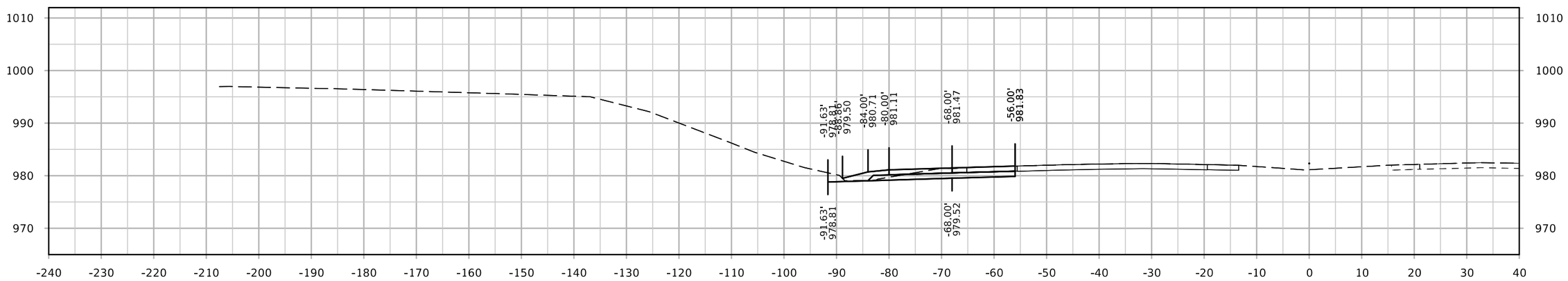
I-80



STA. 1292+25.00



STA. 1292+00.00

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.1

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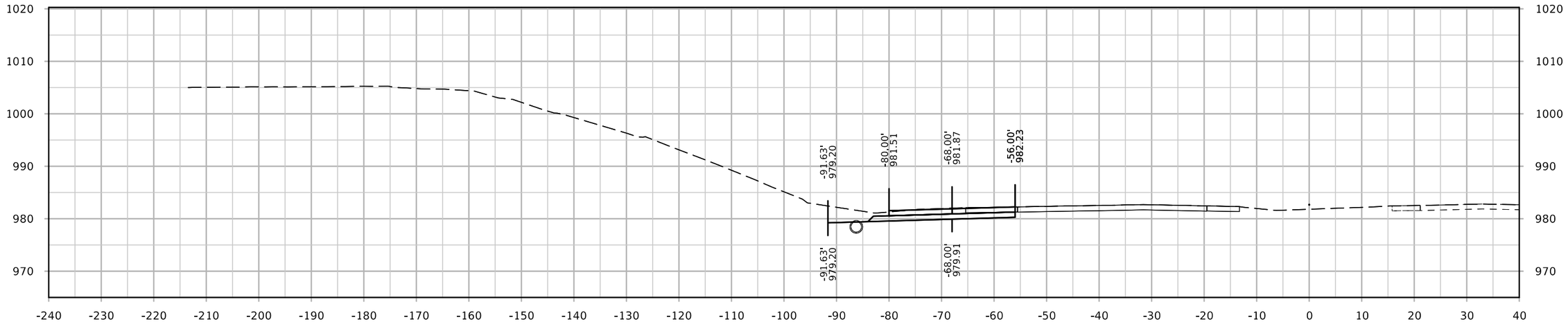
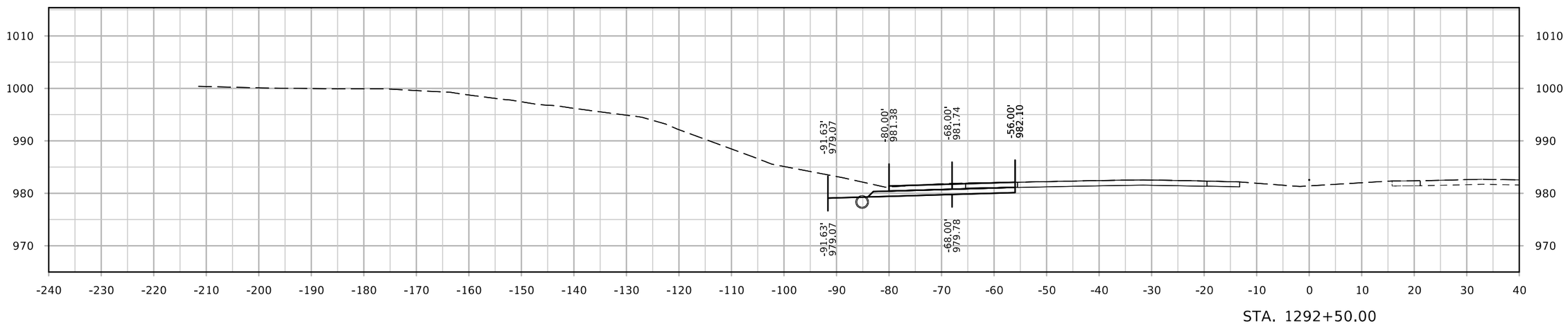
I-80



STA. 1292+75.00



STA. 1292+50.00

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.2

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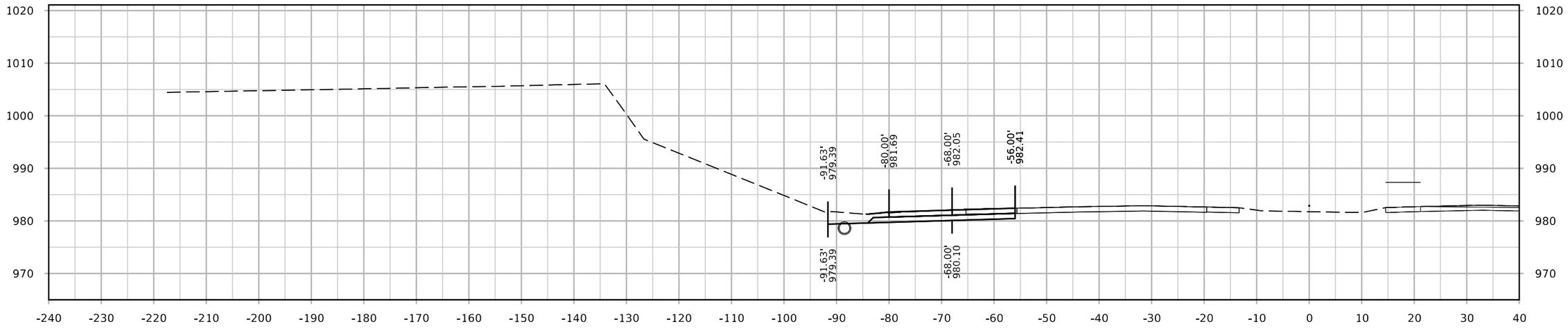
I-80



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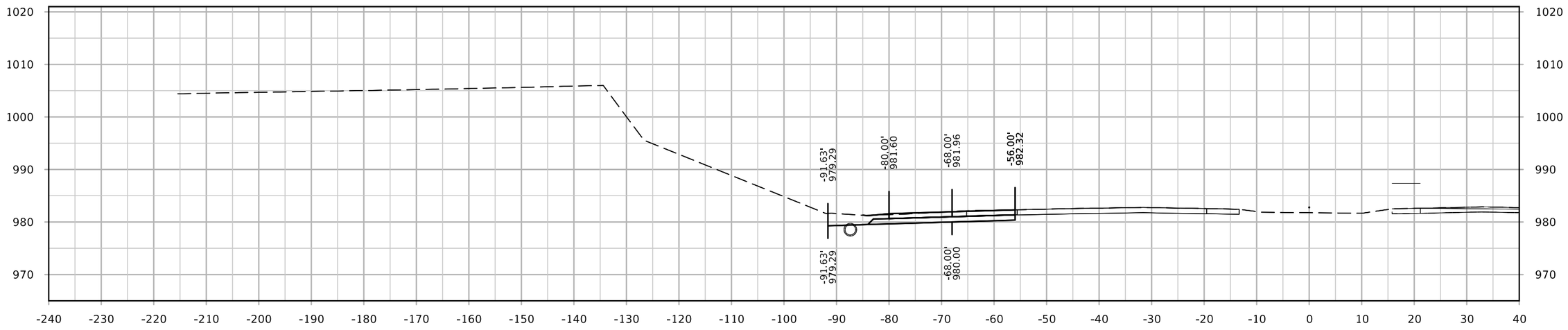

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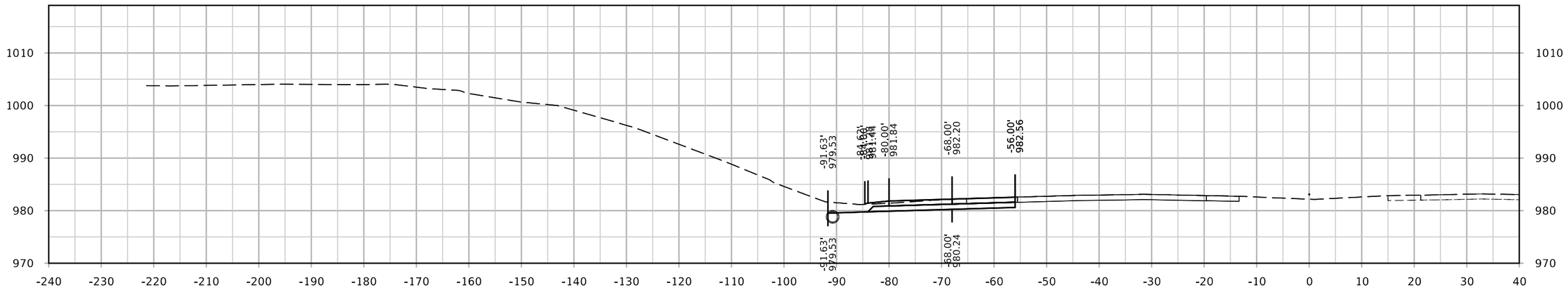
I-80



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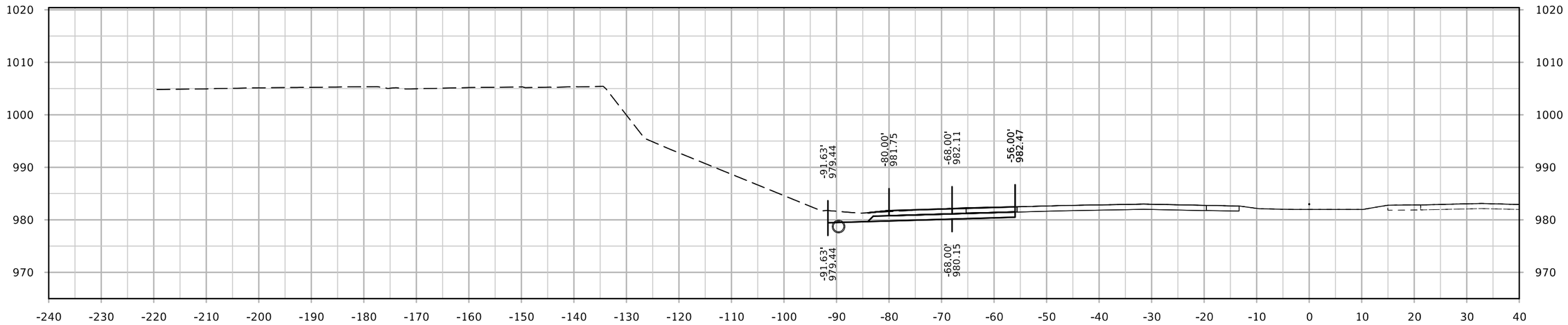

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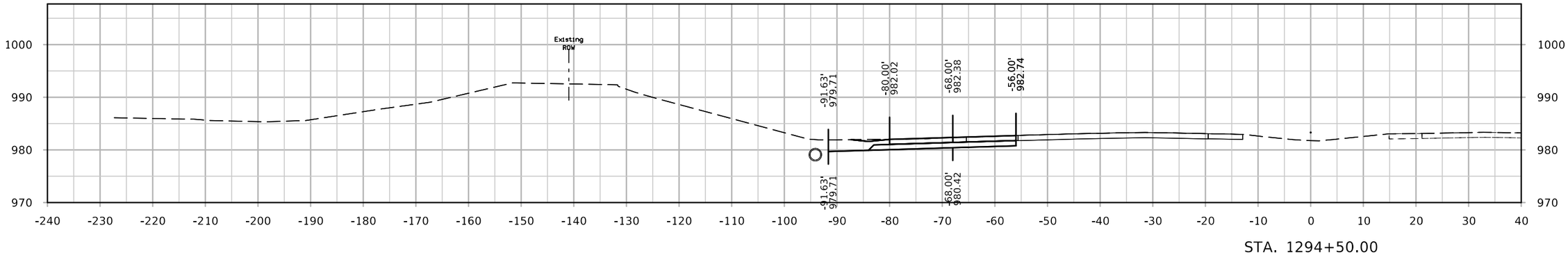
I-80



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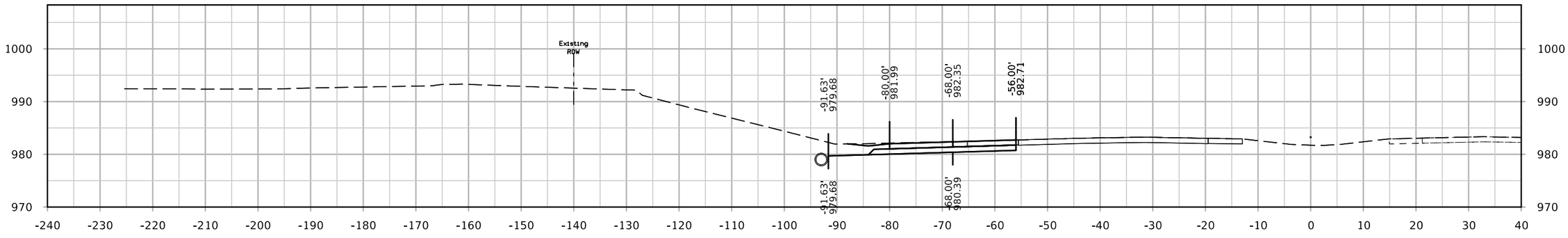

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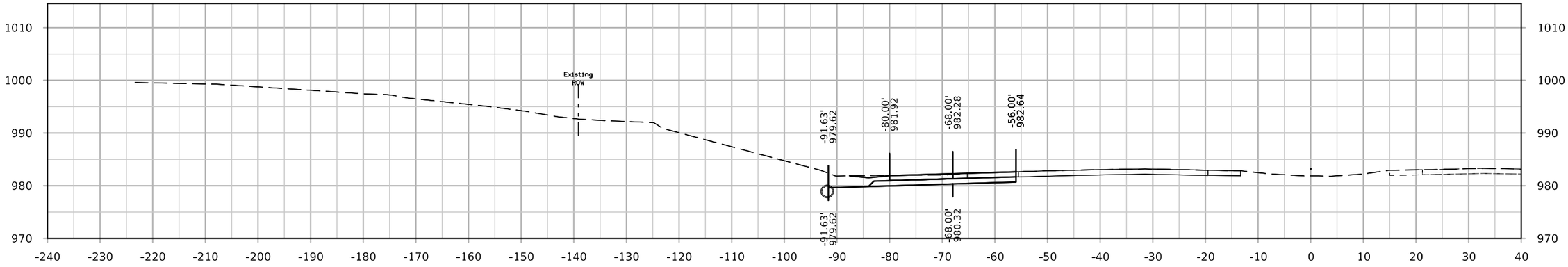

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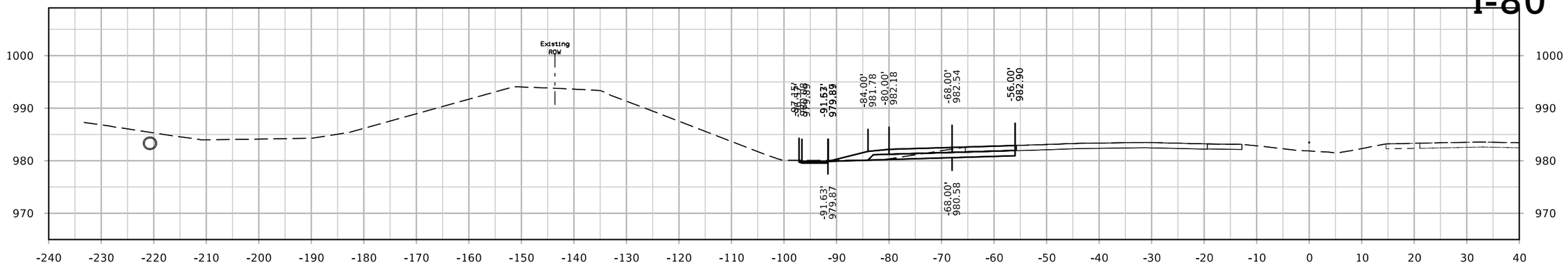
I-80



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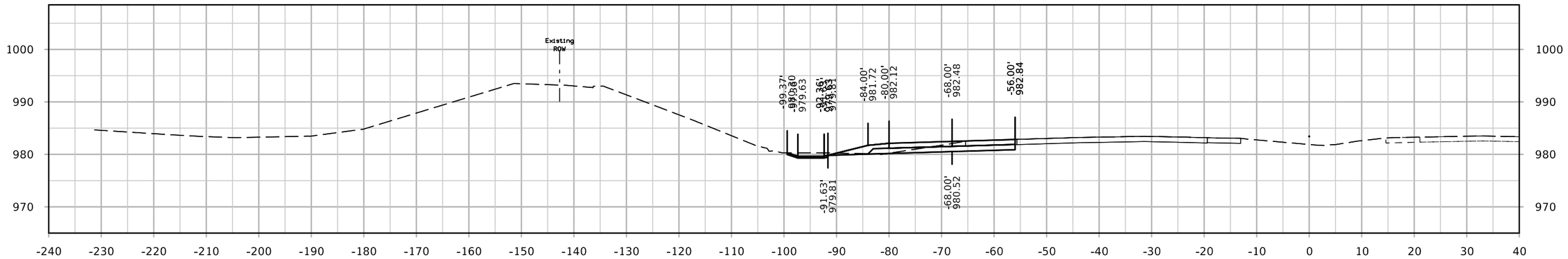

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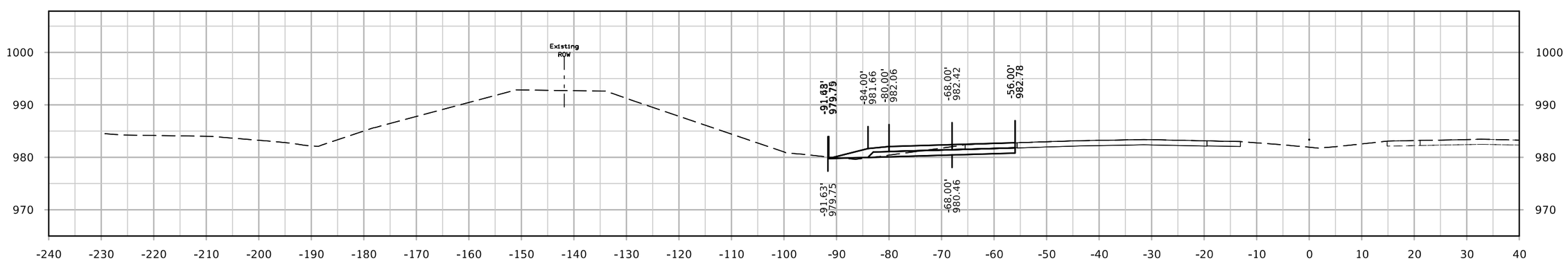

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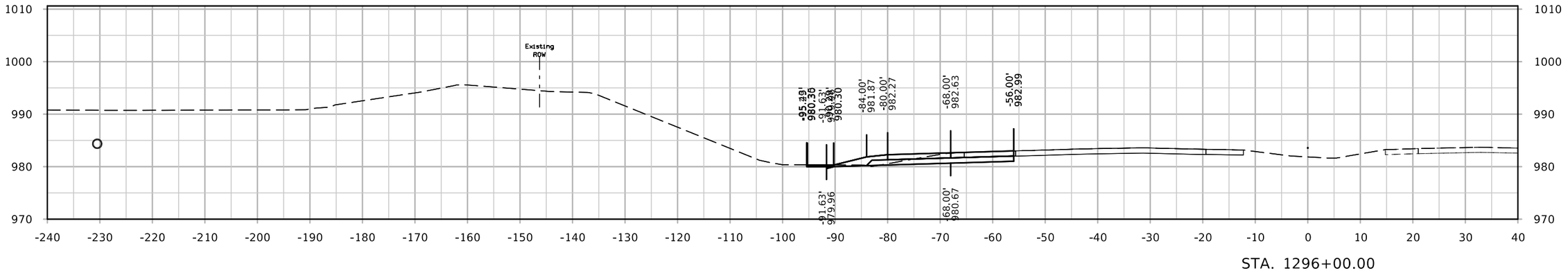
I-80



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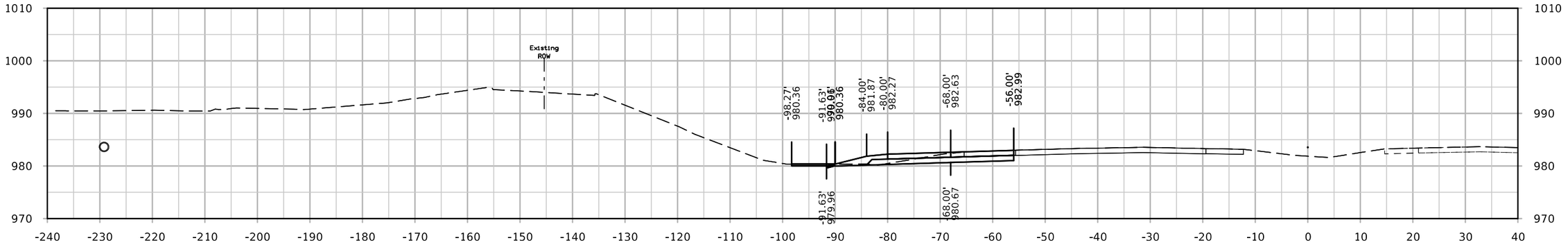

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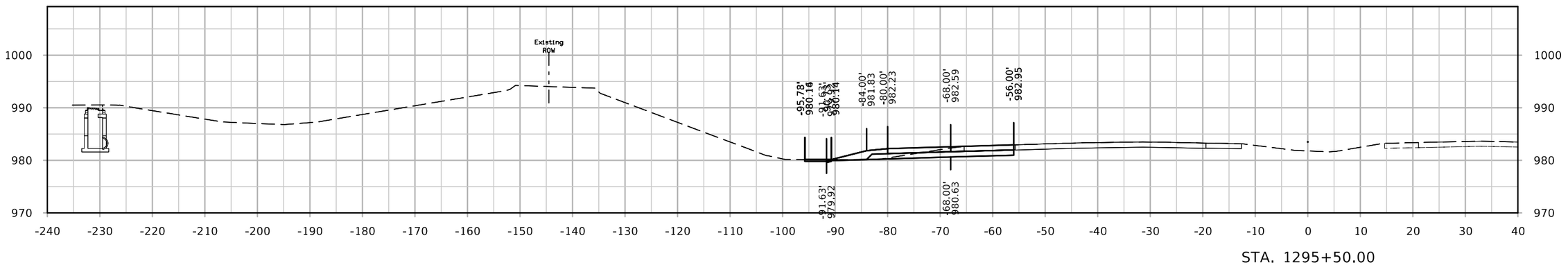

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FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.7

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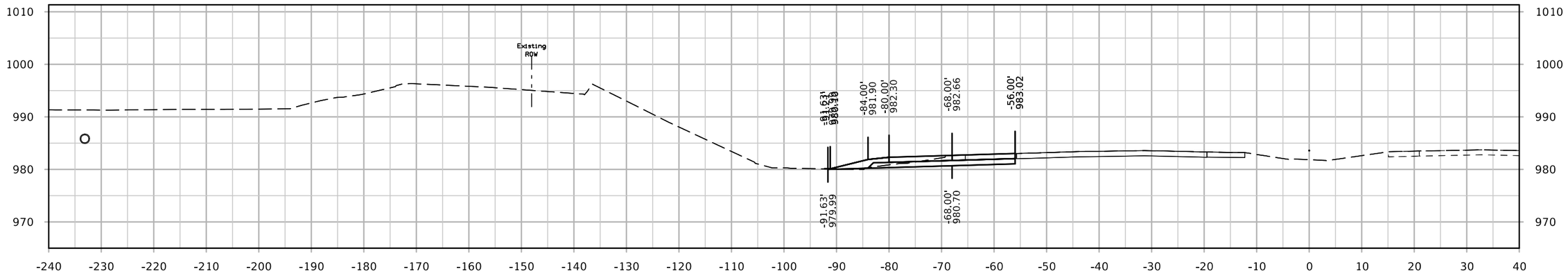

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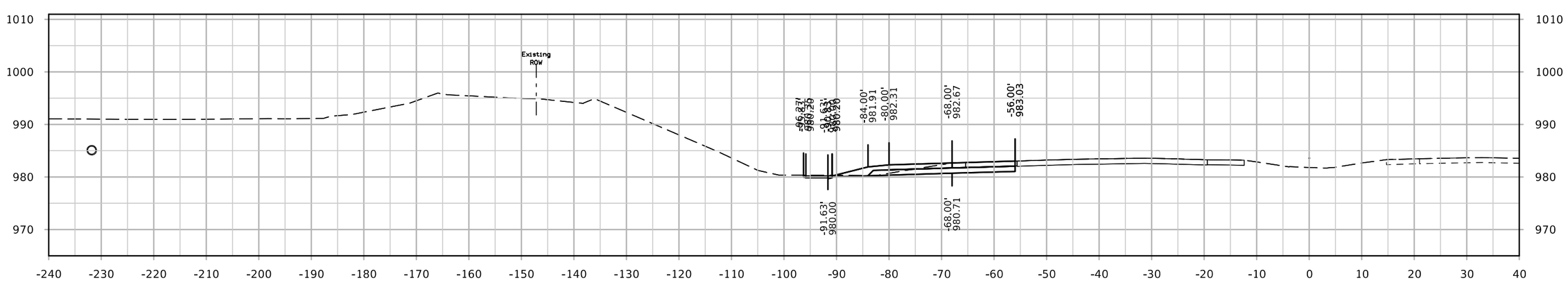

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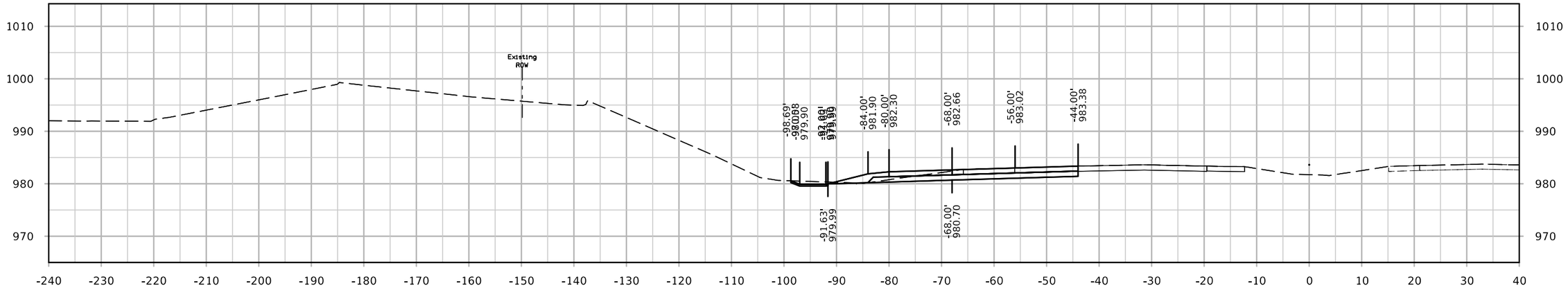
I-80



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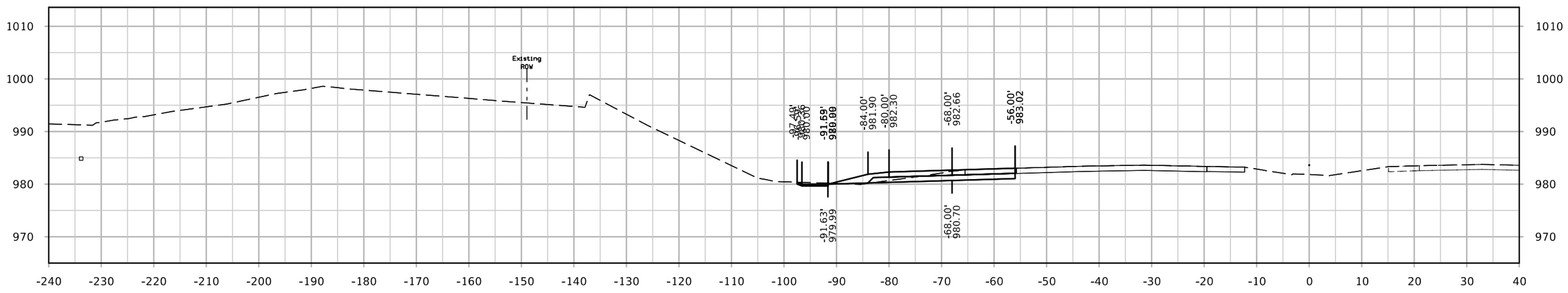

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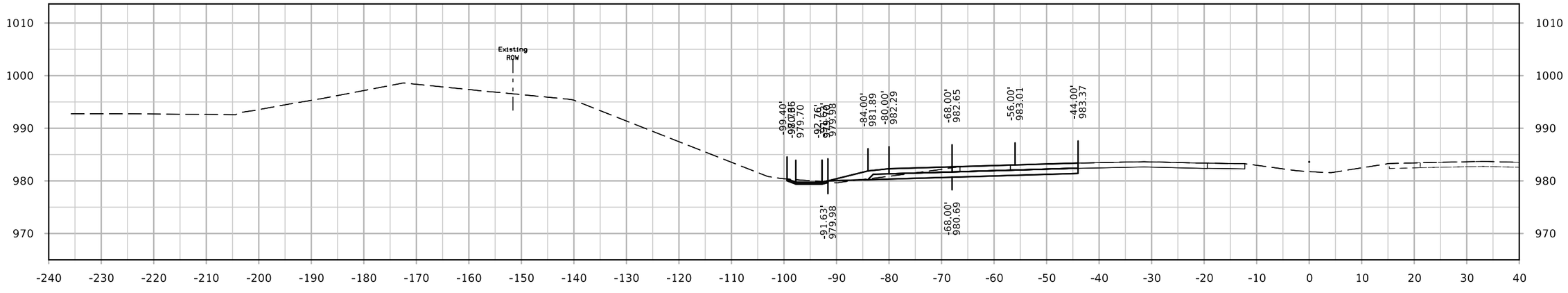
I-80



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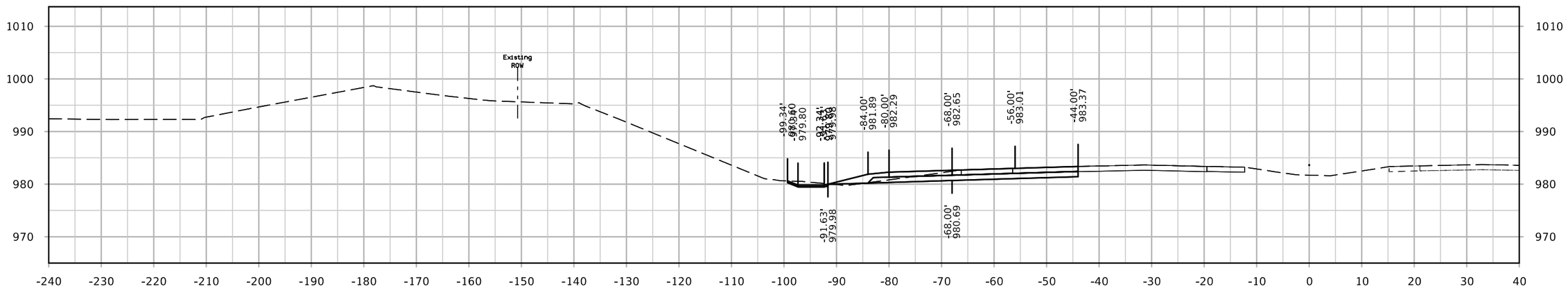

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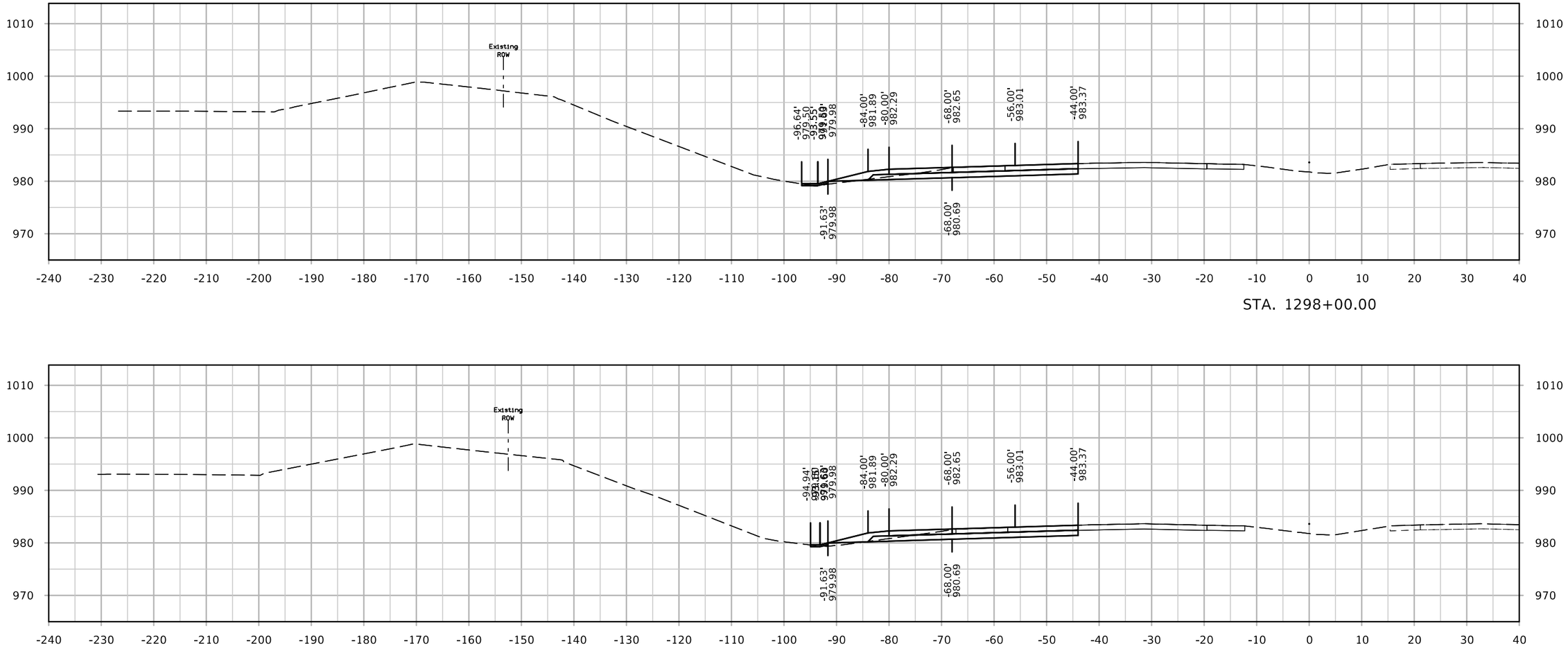
I-80



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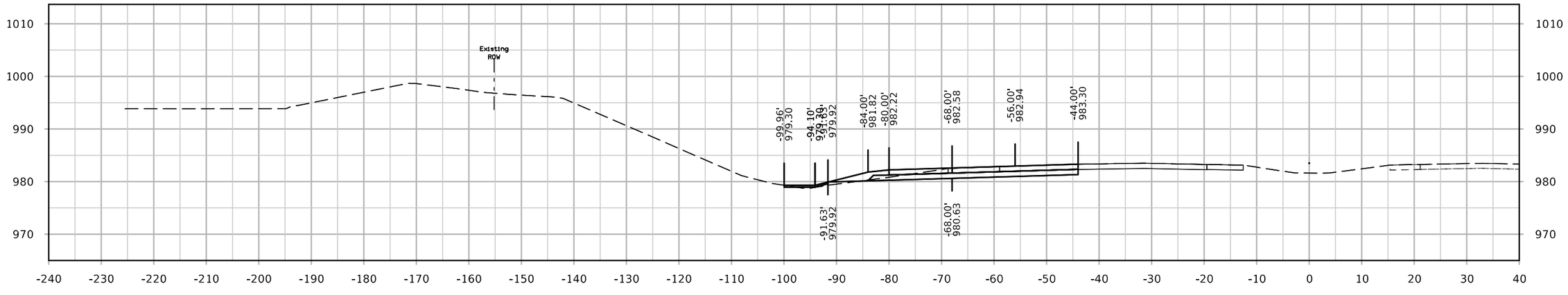
I-80



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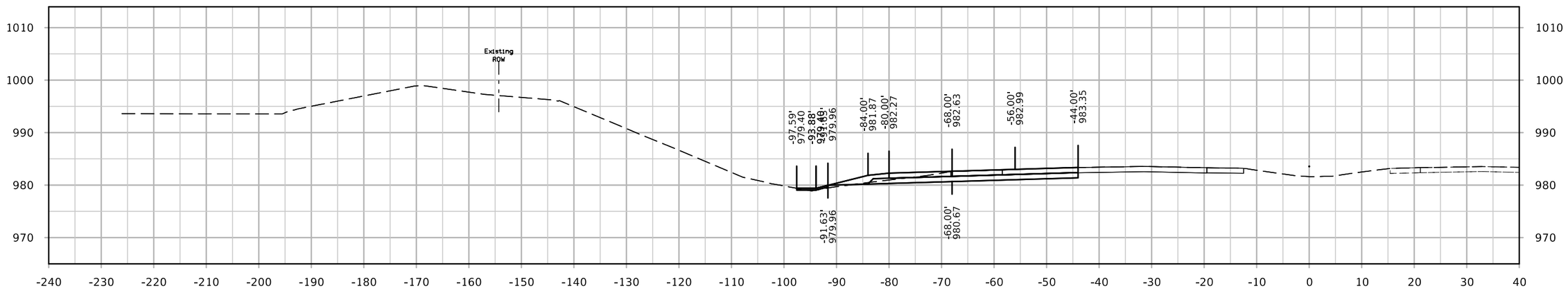

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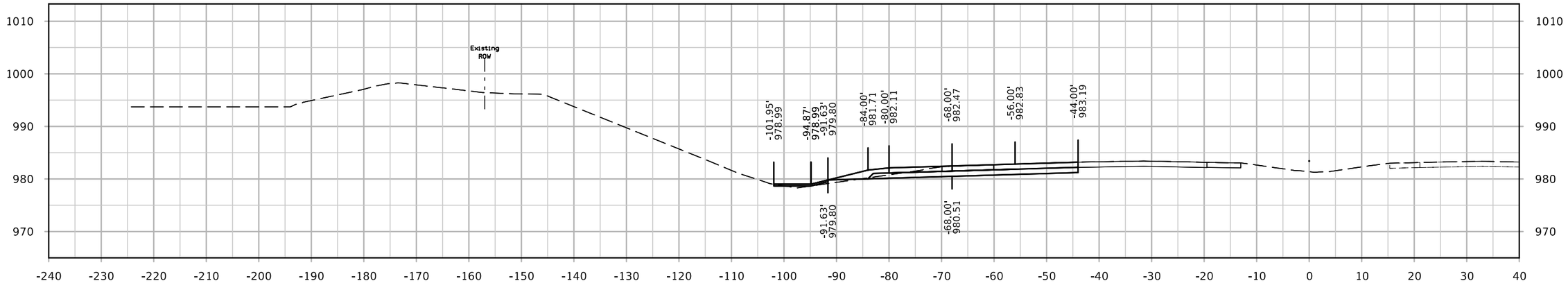
I-80



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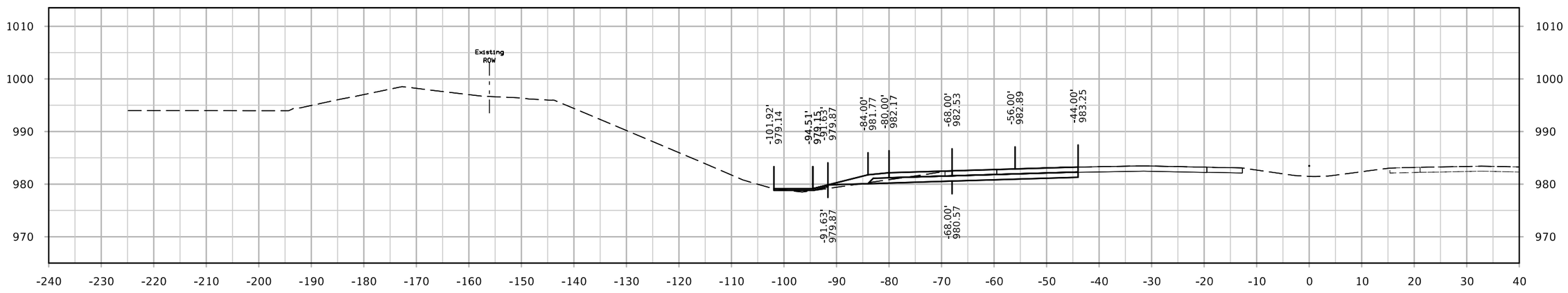
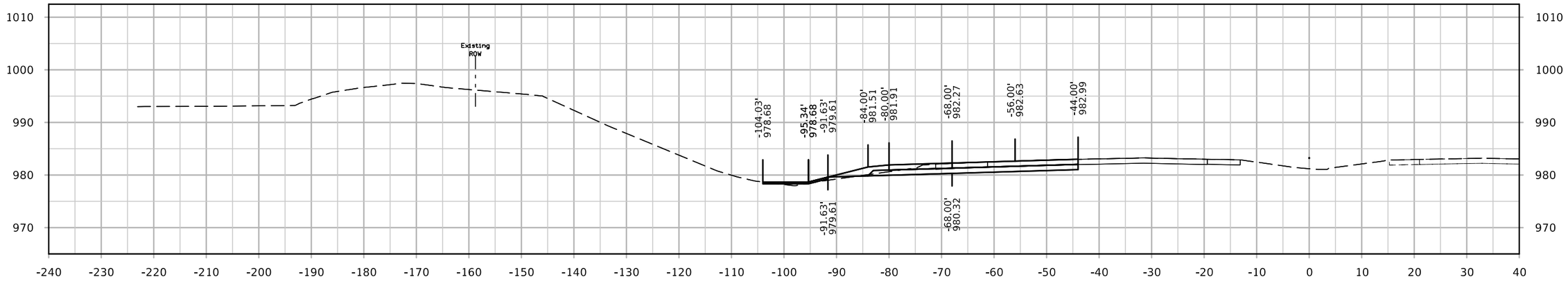


STA. 1298+75.00

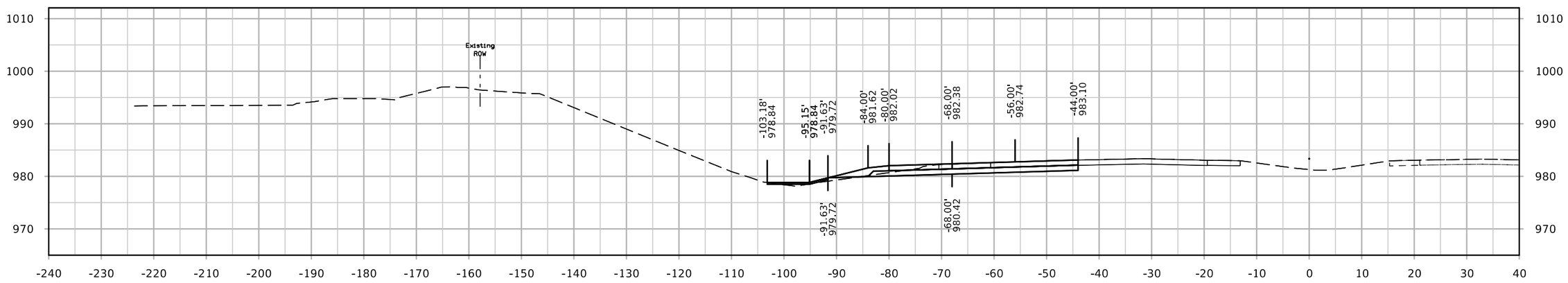
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.13

8:32:30 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

I-80



STA. 1299+50.00

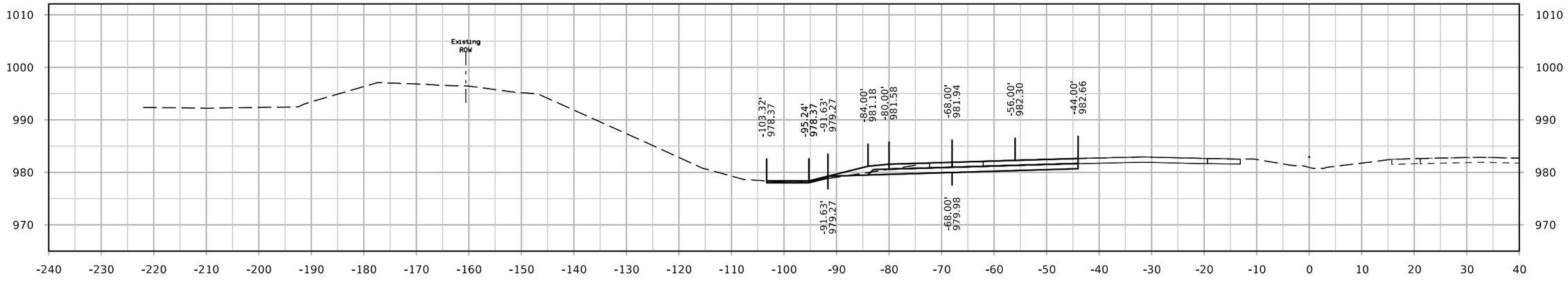


STA. 1299+25.00

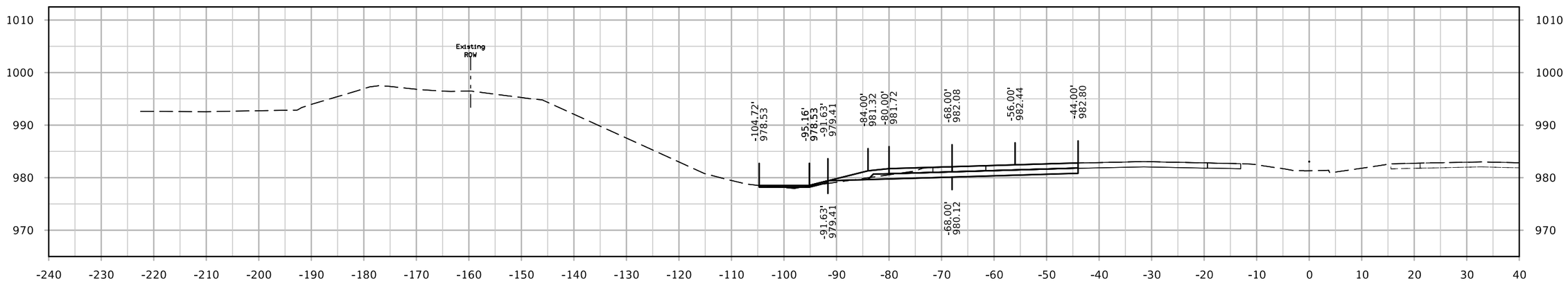
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.14

8:32:32 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

I-80



STA. 1300+00.00

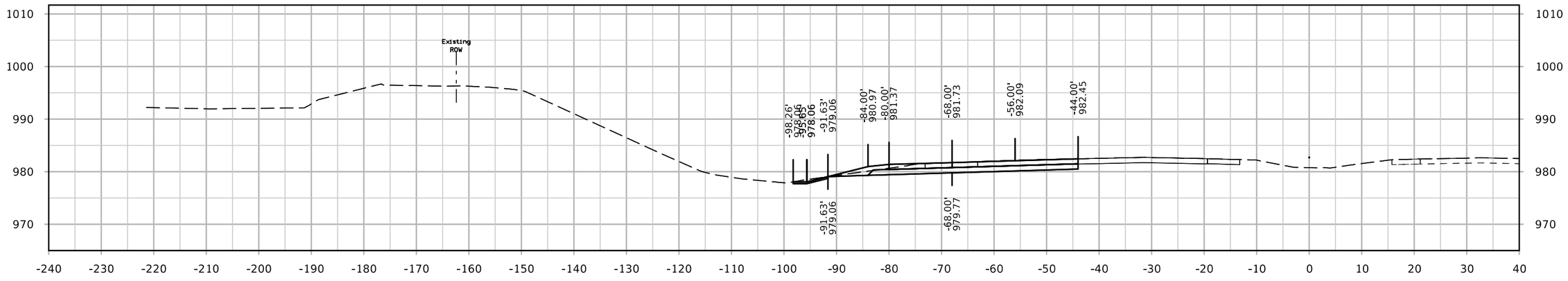


STA. 1299+75.00

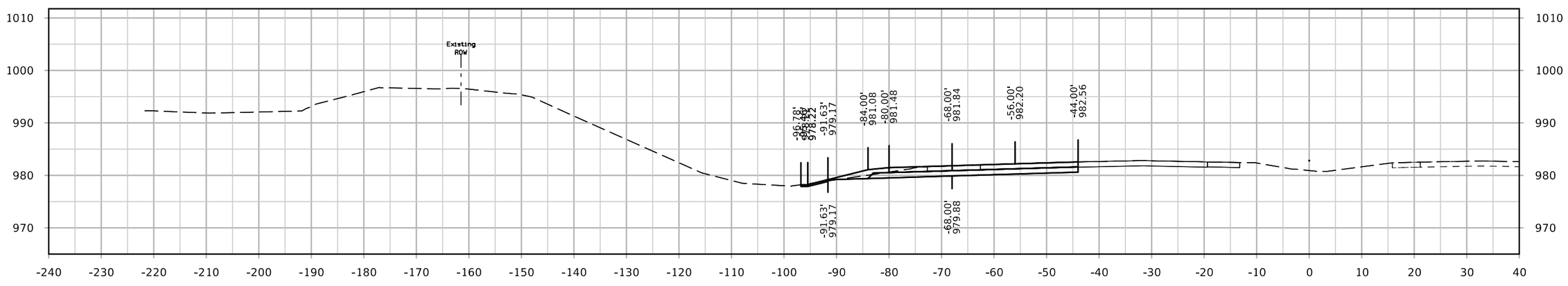
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.15

8:32:34 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

I-80



STA. 1300+50.00

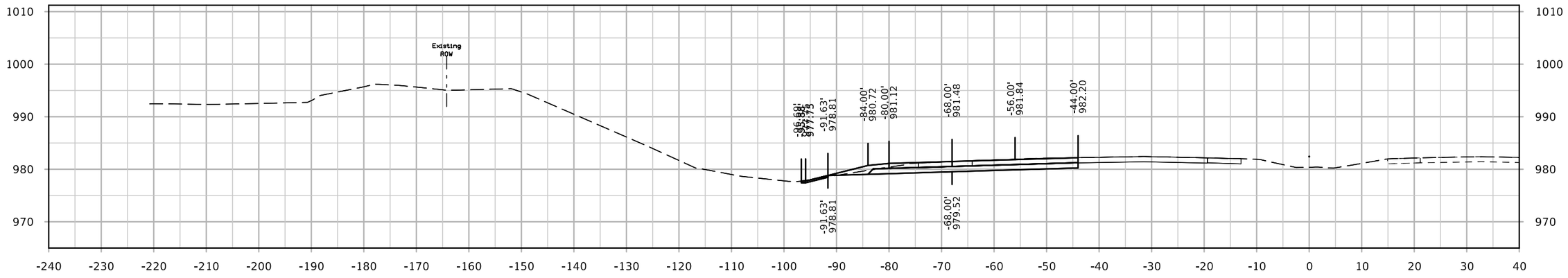


STA. 1300+25.00

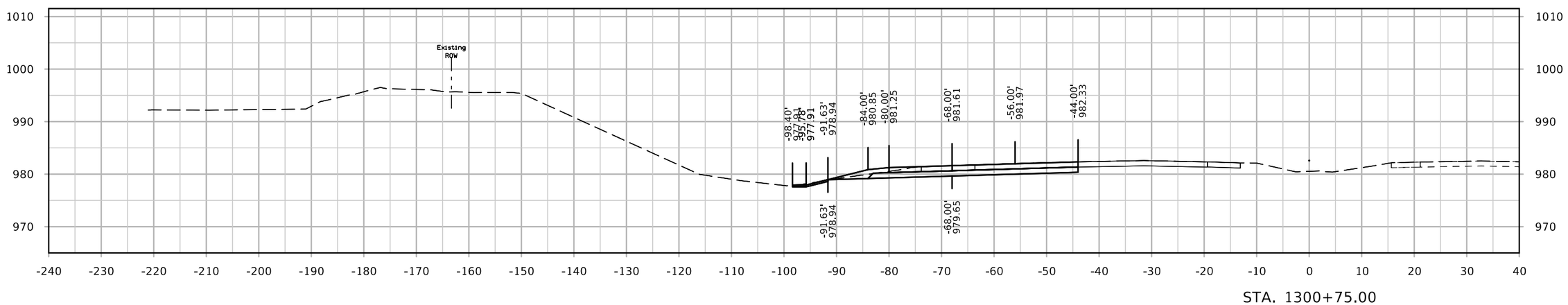
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.16

8:32:35 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

I-80



STA. 1301+00.00

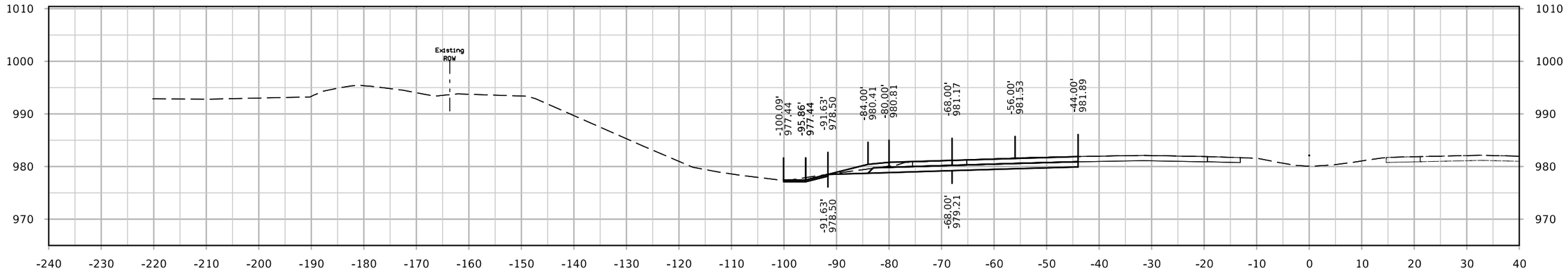


STA. 1300+75.00

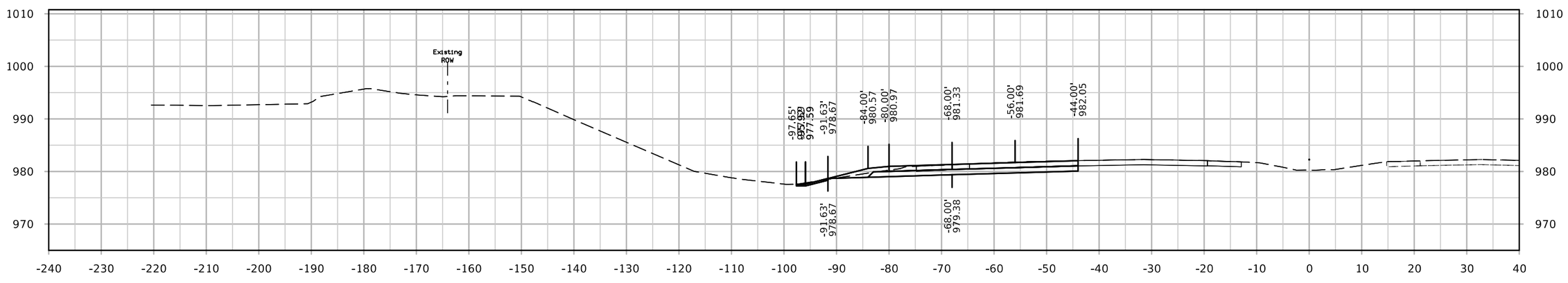
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.17

8:32:37 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

I-80



STA. 1301+50.00

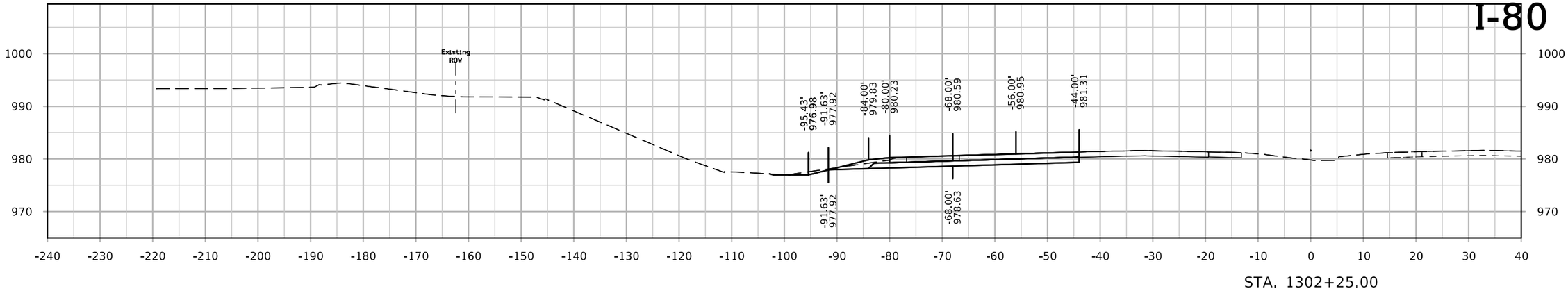


STA. 1301+25.00

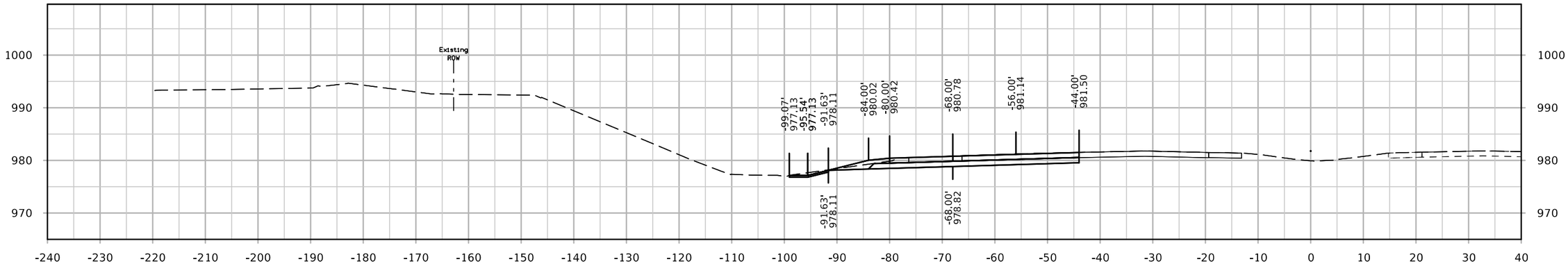
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.18

8:32:38 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

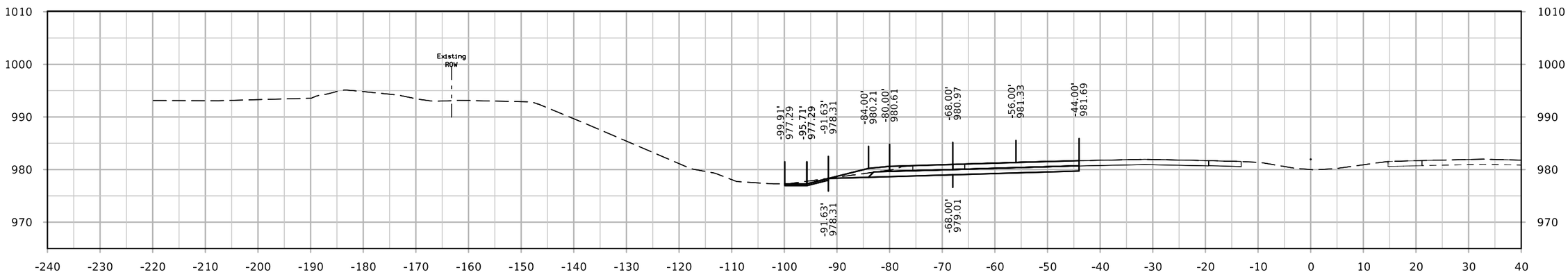
I-80



STA. 1302+25.00



STA. 1302+00.00

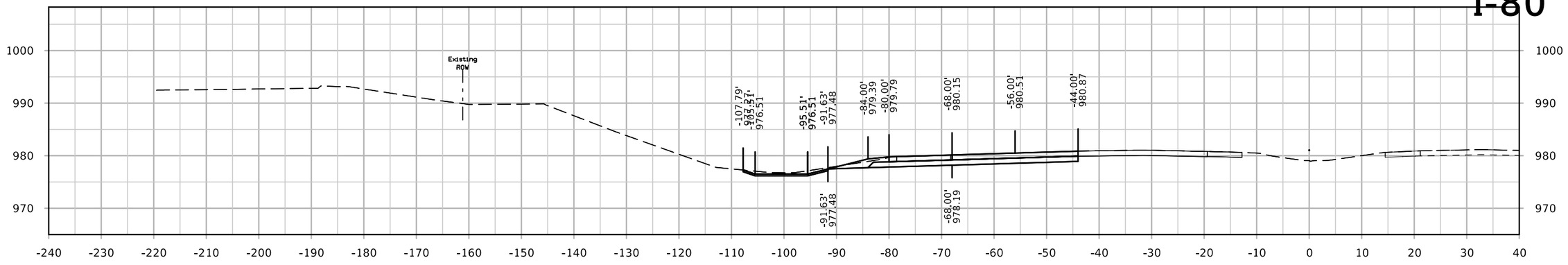


STA. 1301+75.00

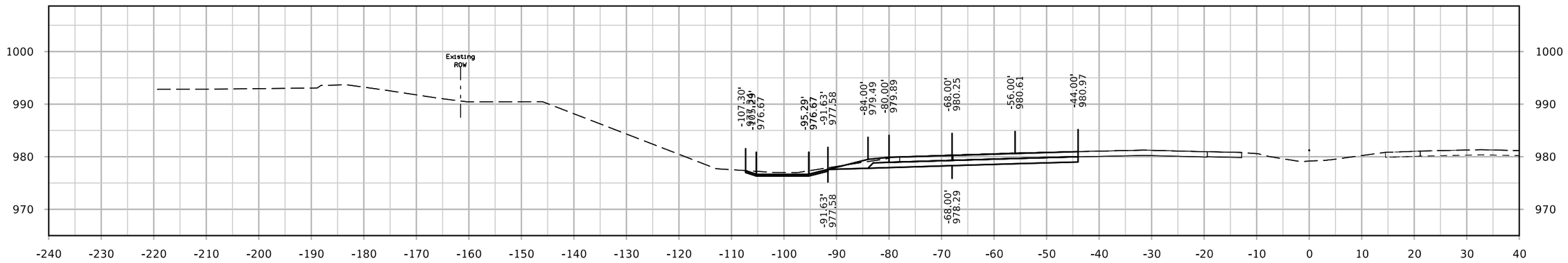
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.19

8:32:40 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

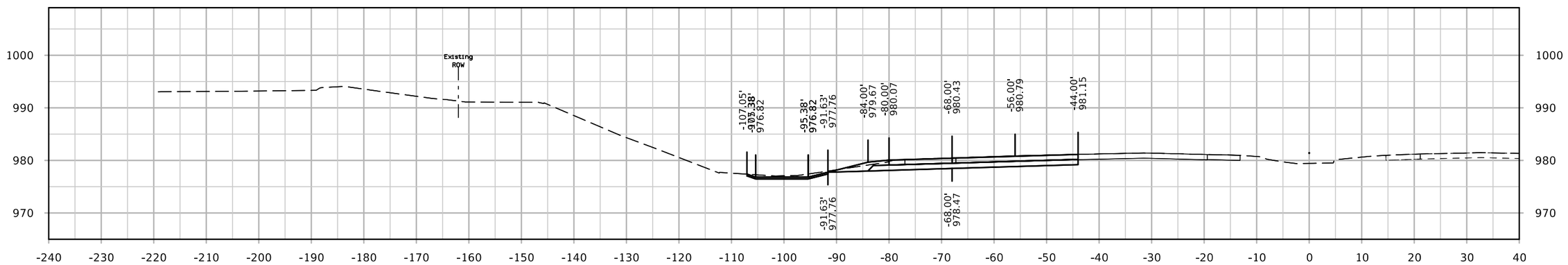
I-80



STA. 1303+00.00



STA. 1302+75.00

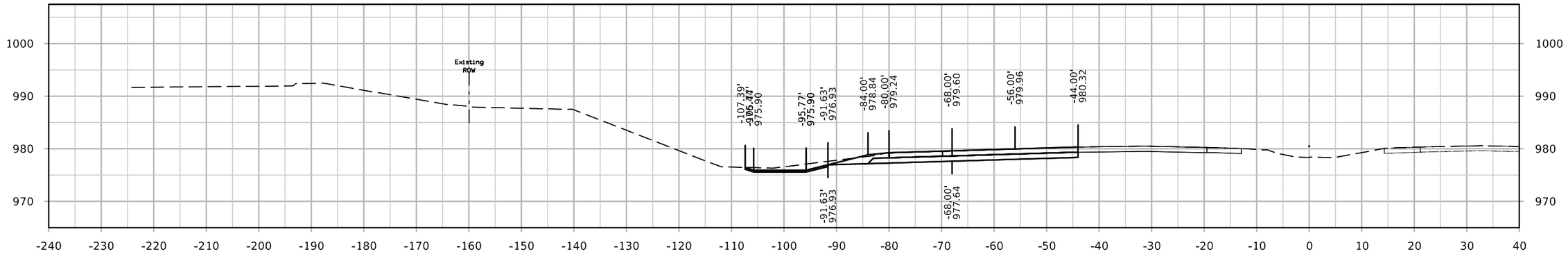


STA. 1302+50.00

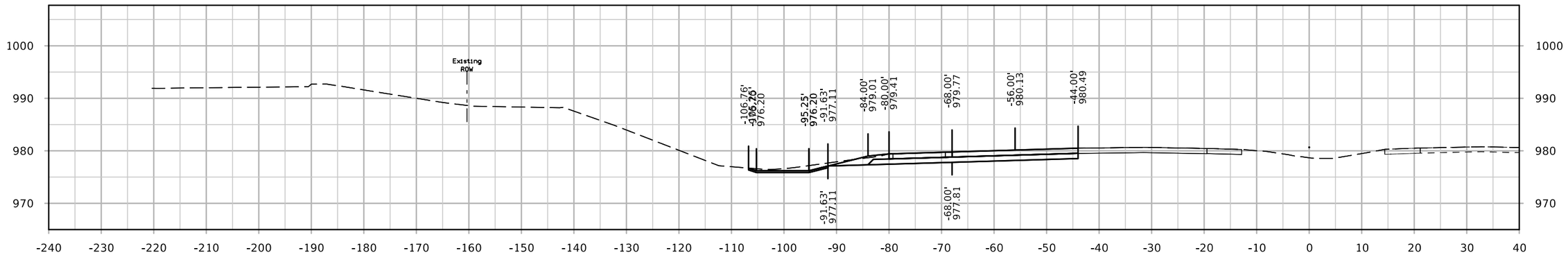
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.20

8:32:42 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

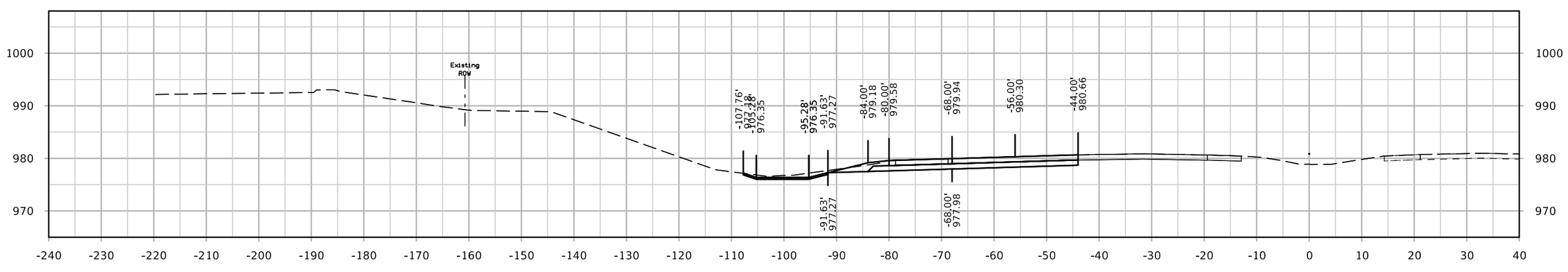
I-80



STA. 1303+75.00



STA. 1303+50.00

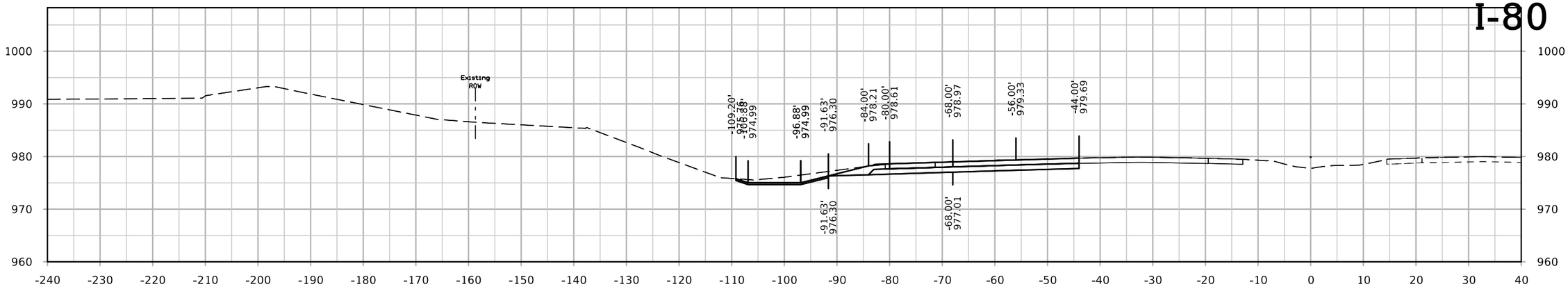


STA. 1303+25.00

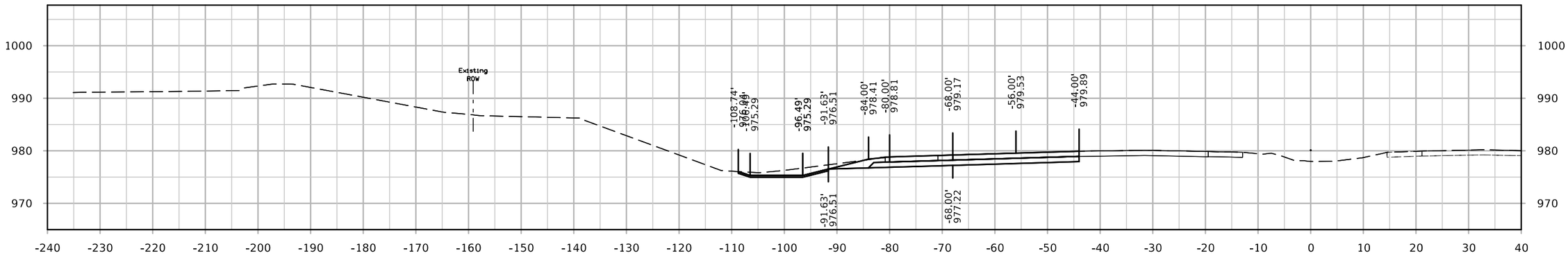
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.21

8:32:44 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

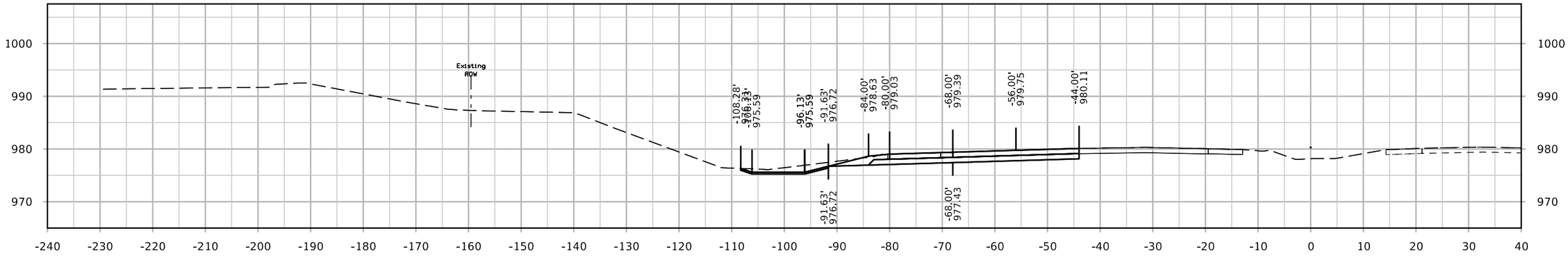
I-80



STA. 1304+50.00



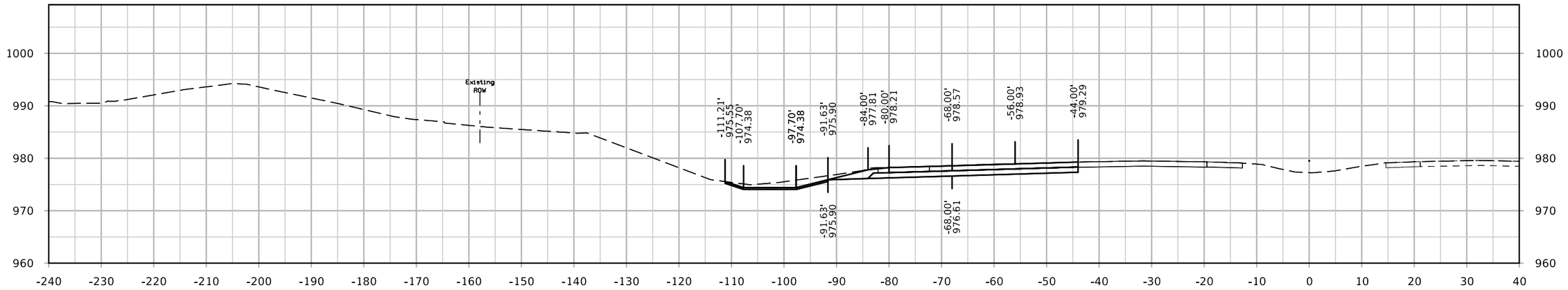
STA. 1304+25.00



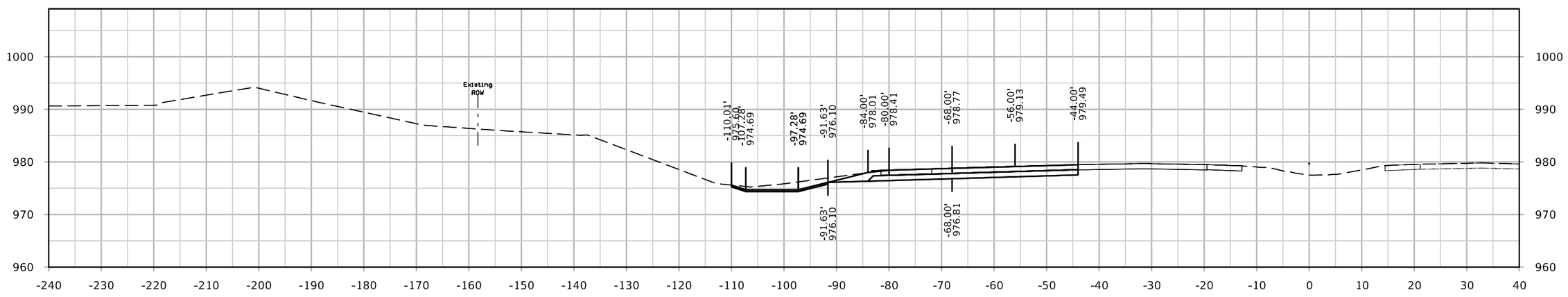
STA. 1304+00.00

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.22

8:32:46 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

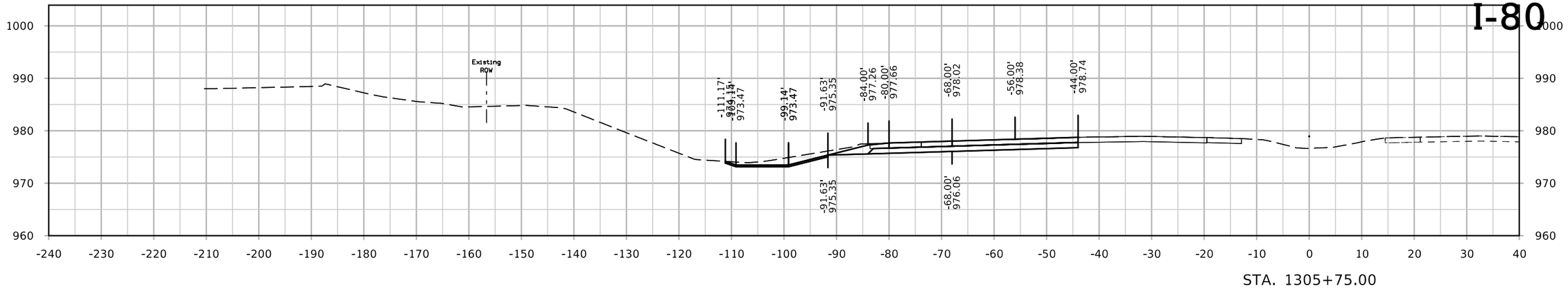


STA. 1305+00.00

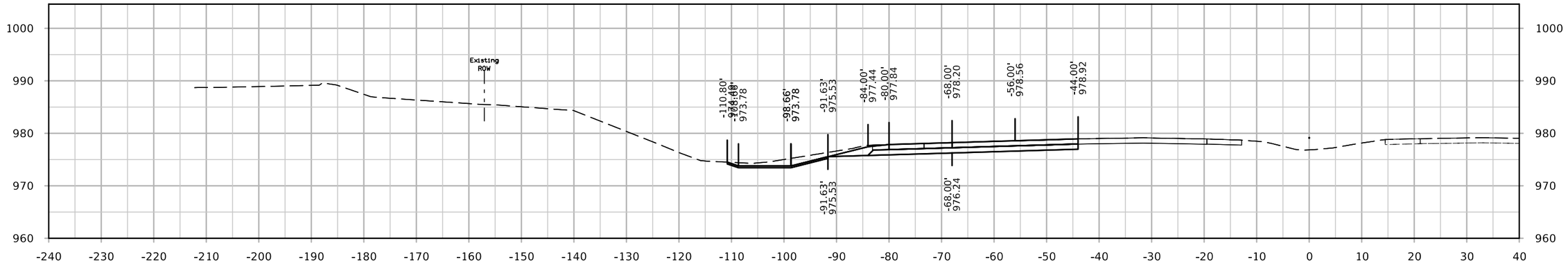


STA. 1304+75.00

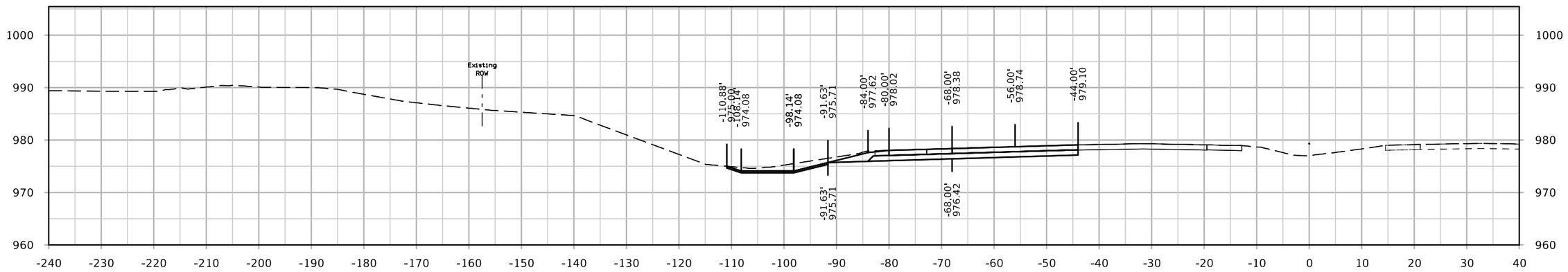
I-80



STA. 1305+75.00



STA. 1305+50.00

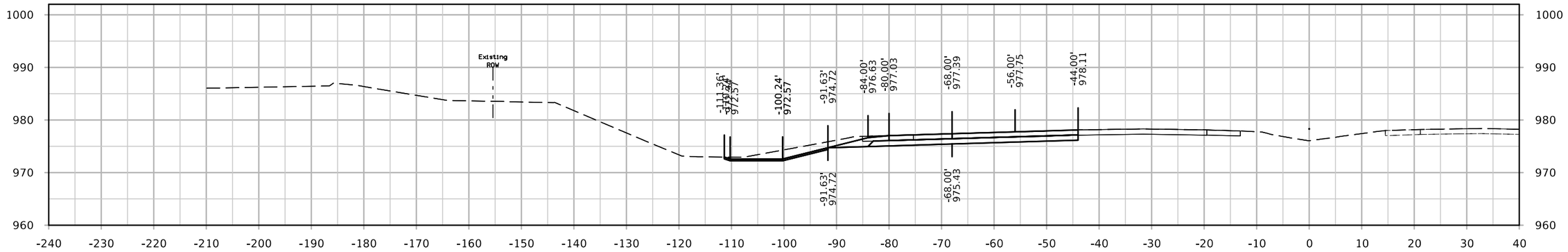


STA. 1305+25.00

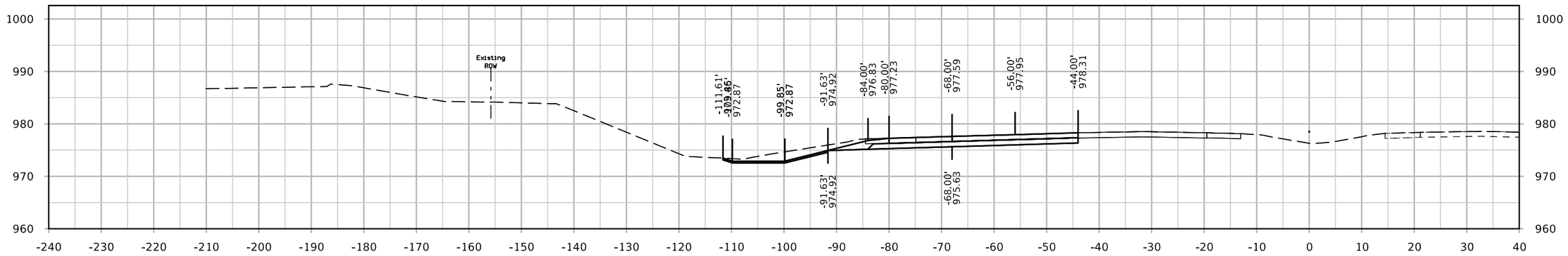
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.24

8:32:50 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

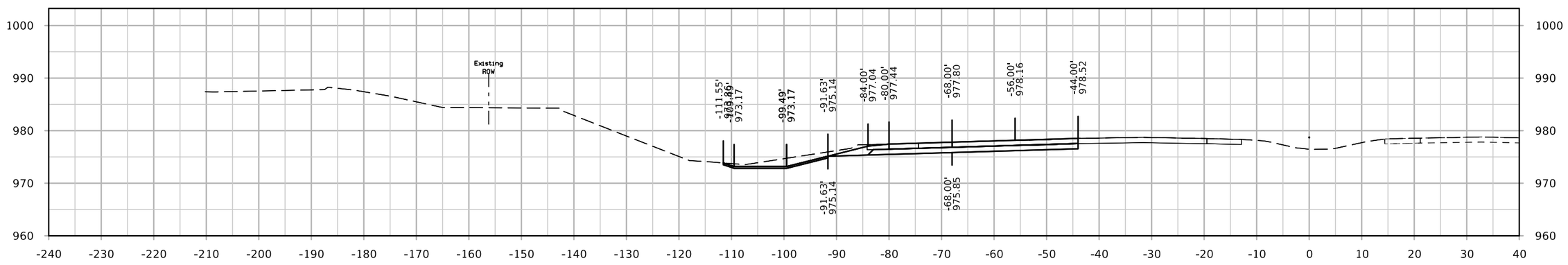
I-80



STA. 1306+50.00



STA. 1306+25.00

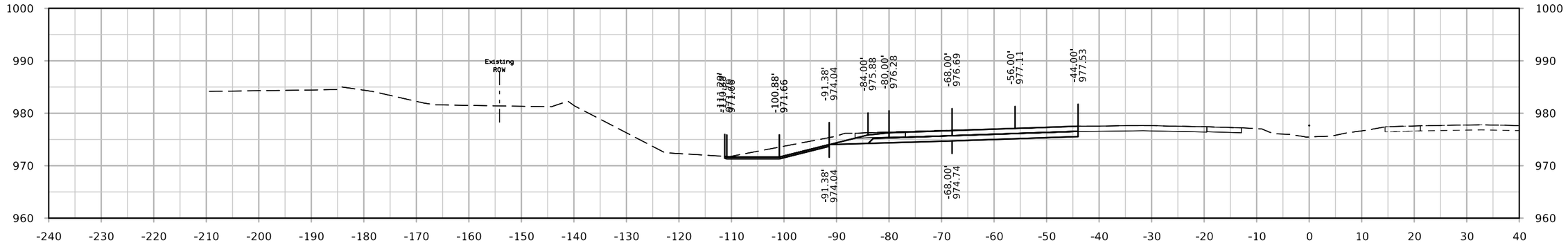


STA. 1306+00.00

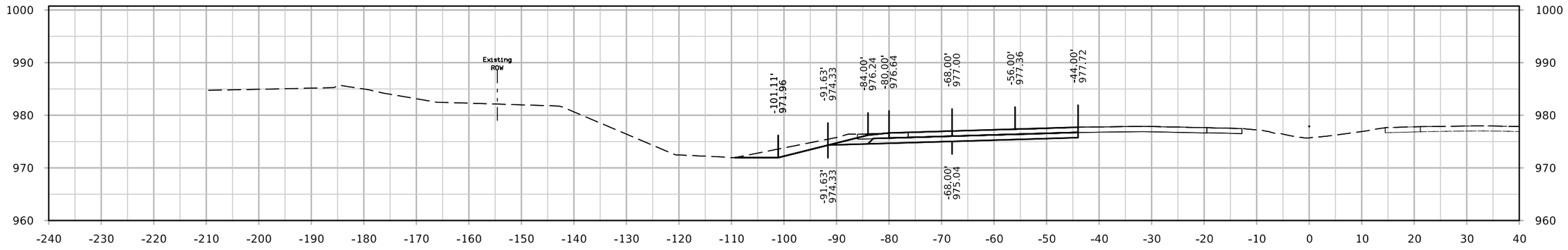
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.25

8:32:52 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

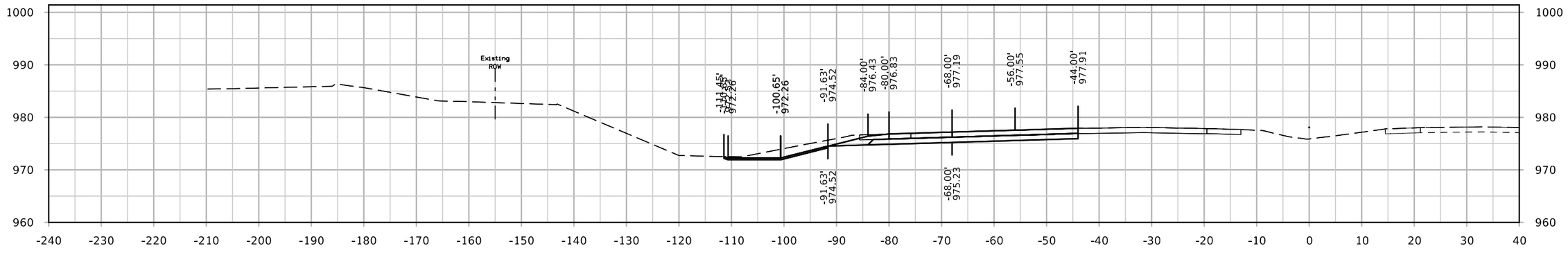
I-80



STA. 1307+25.00



STA. 1307+00.00

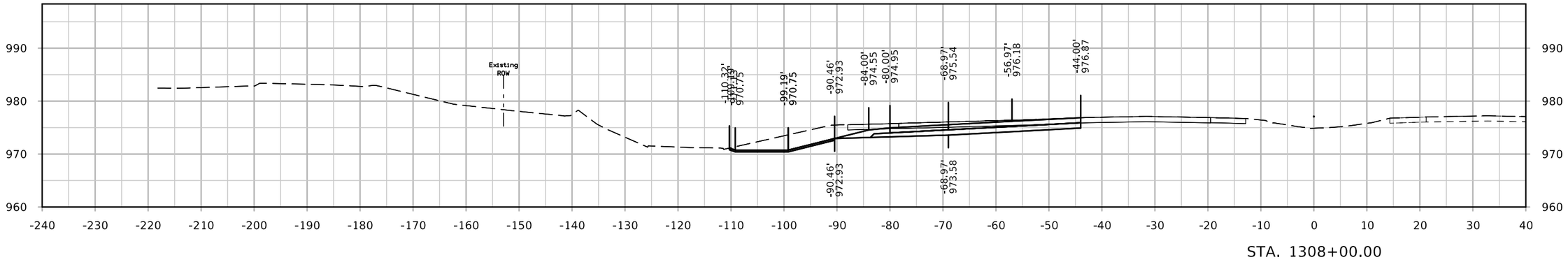


STA. 1306+75.00

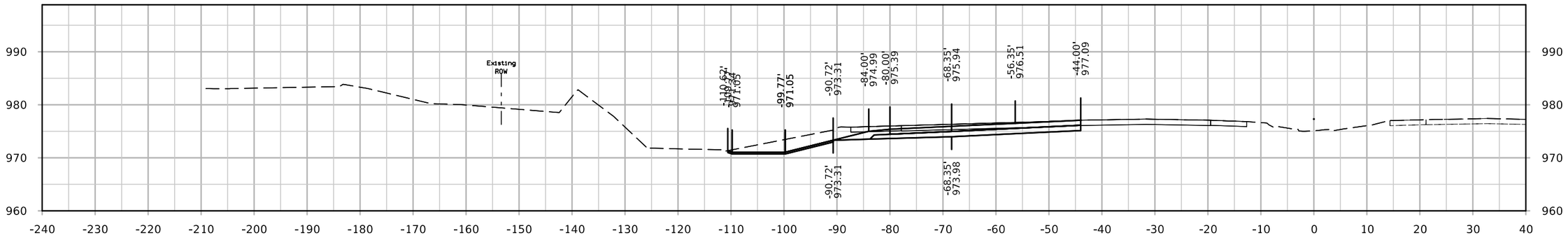
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.26

8:32:55 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

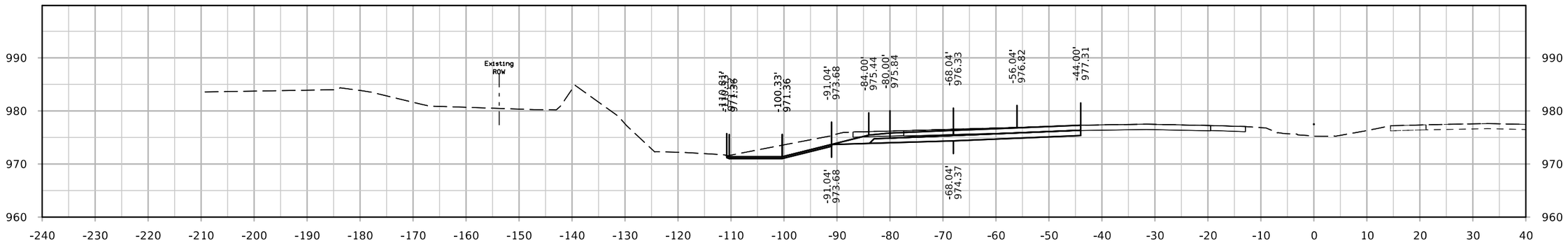
I-80



STA. 1308+00.00

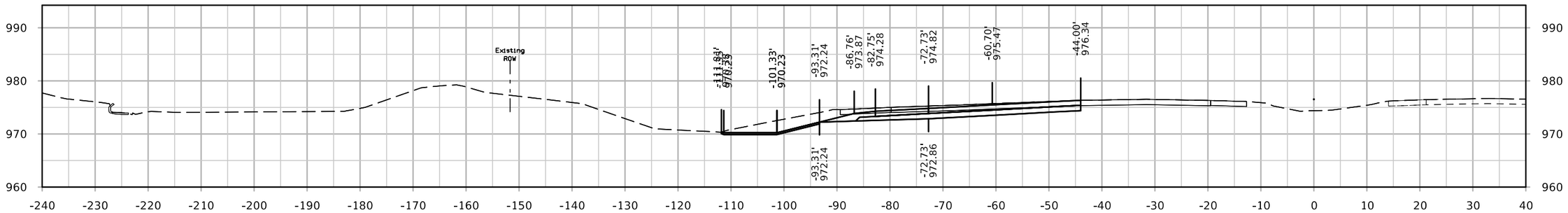


STA. 1307+75.00

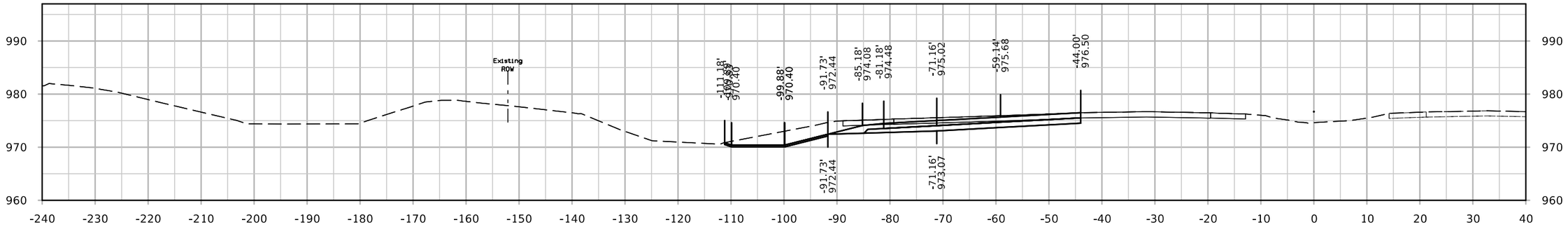


STA. 1307+50.00

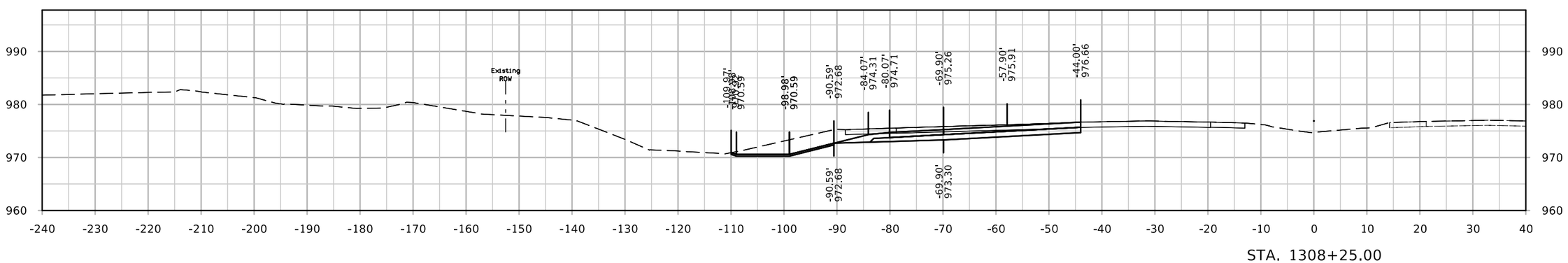
I-80



STA. 1308+75.00



STA. 1308+50.00

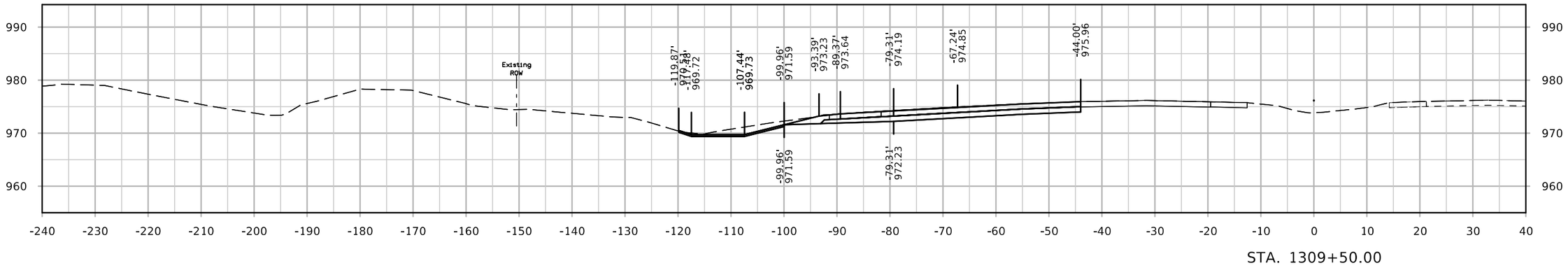


STA. 1308+25.00

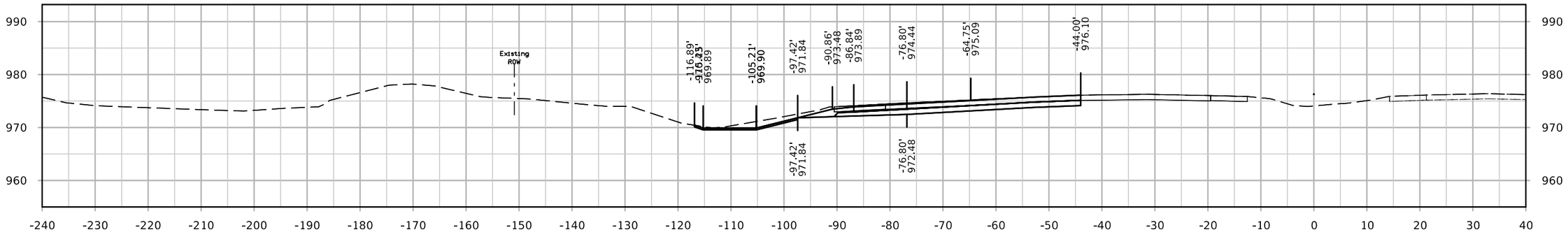
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.28

8:32:59 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

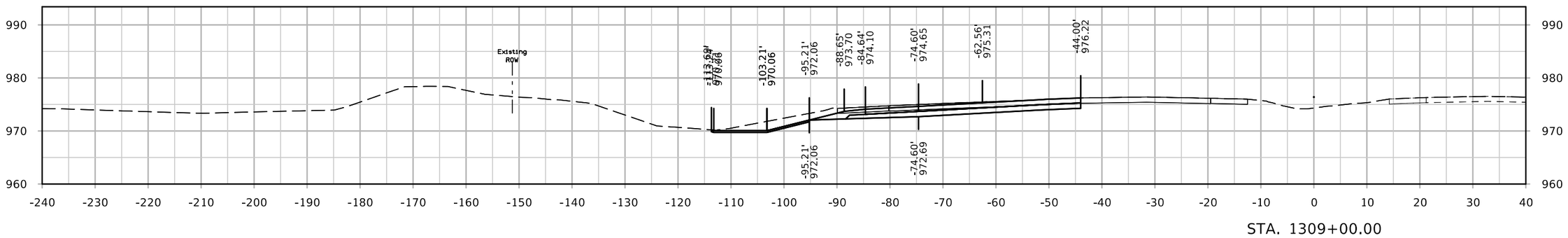
I-80



STA. 1309+50.00



STA. 1309+25.00

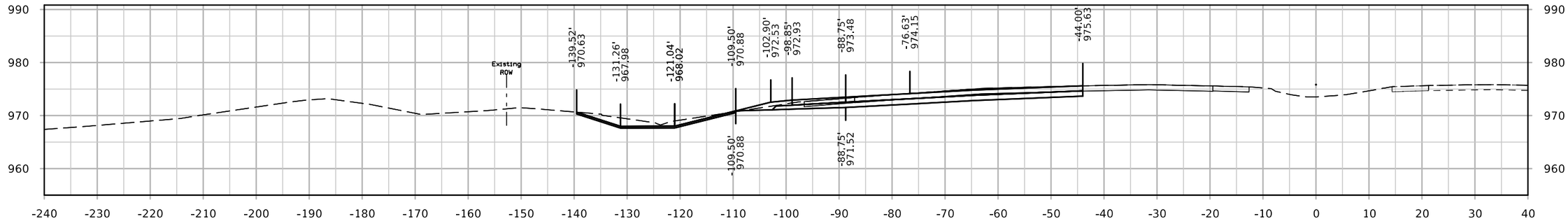


STA. 1309+00.00

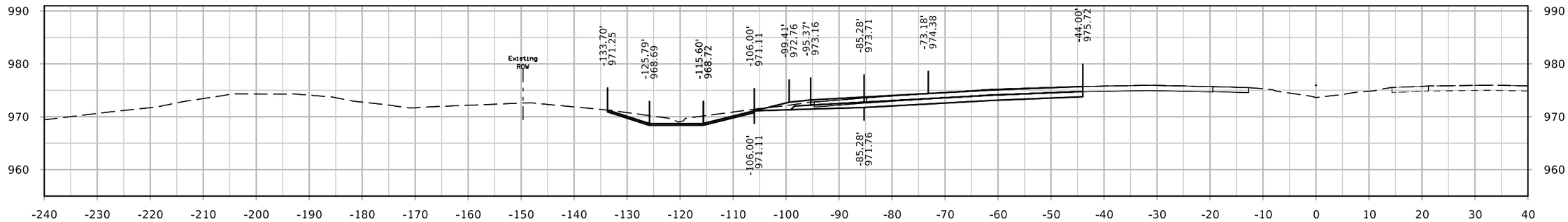
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.29

8:33:01 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

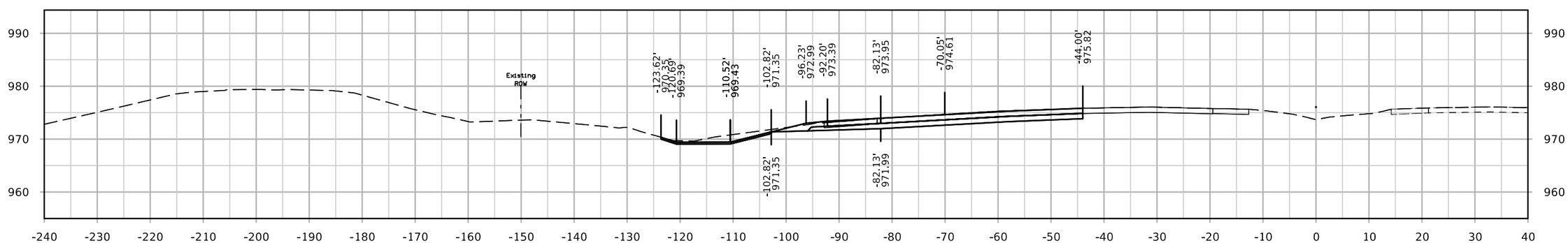
I-80



STA. 1310+25.00



STA. 1310+00.00

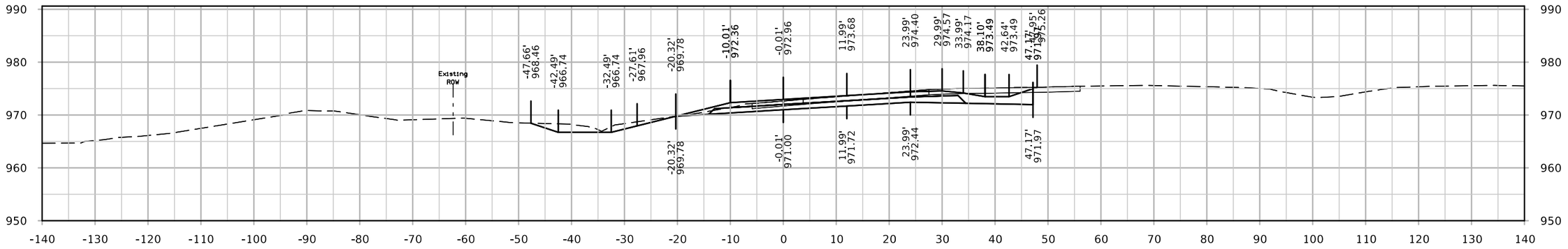


STA. 1309+75.00

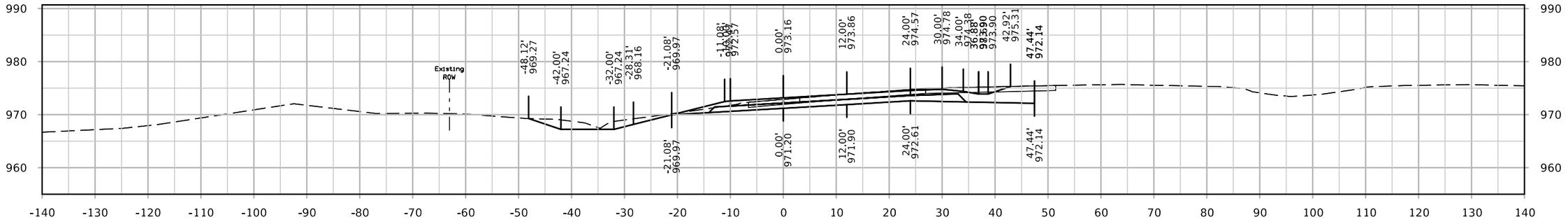
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER W.30

8:33:04 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_W01.dgn

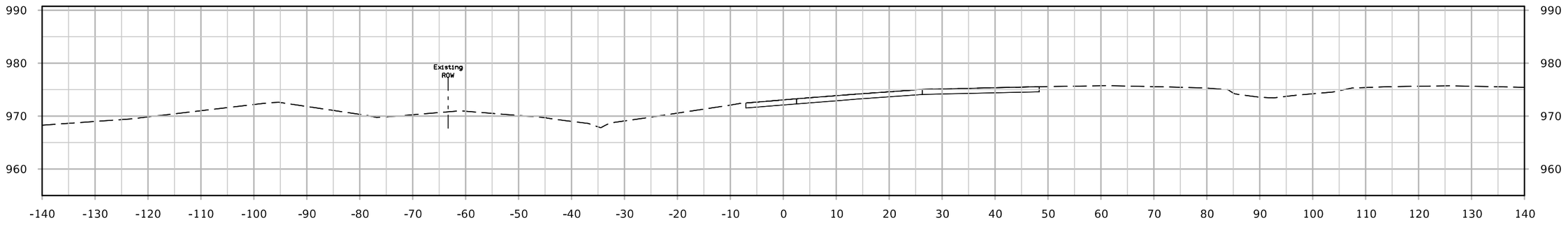
Ramp C



STA. 41310+75.00



STA. 41310+50.00

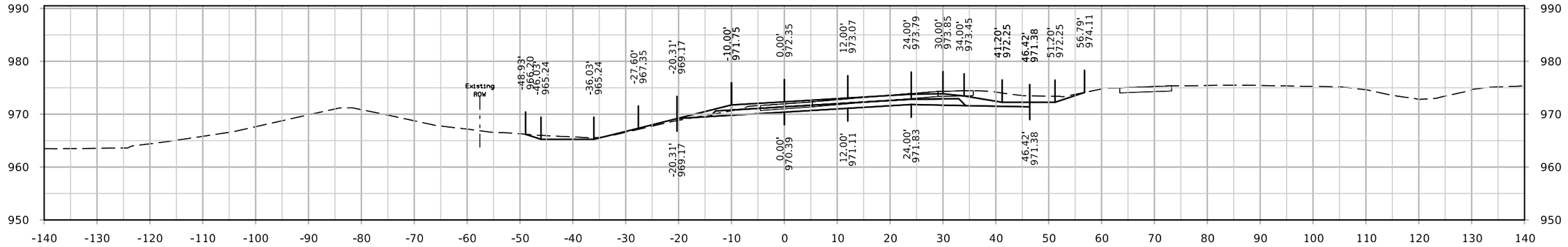


STA. 41310+31.75

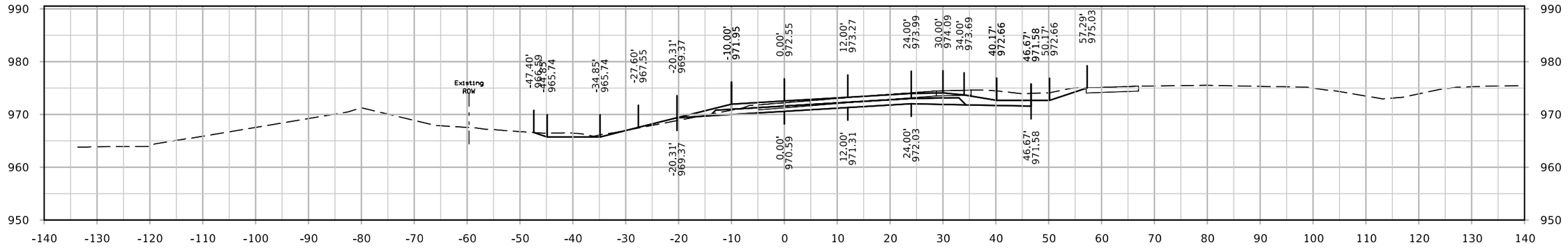
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.1

8:13:28 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn

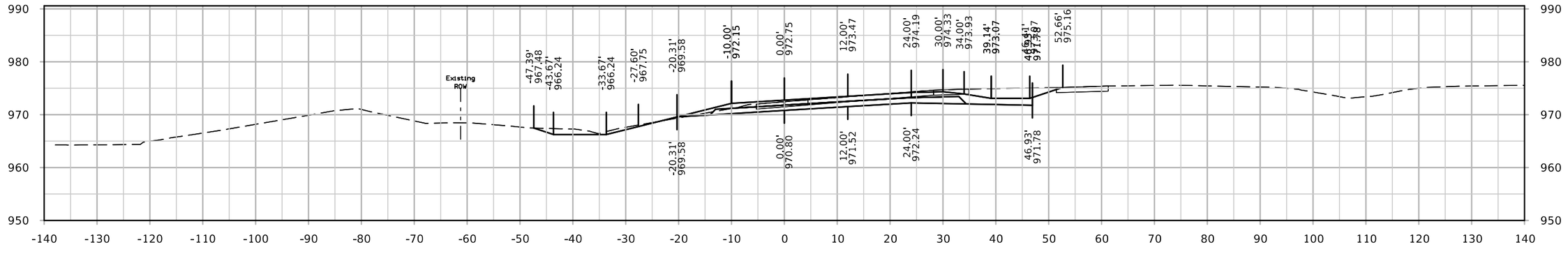
Ramp C



STA. 41311+50.00



STA. 41311+25.00

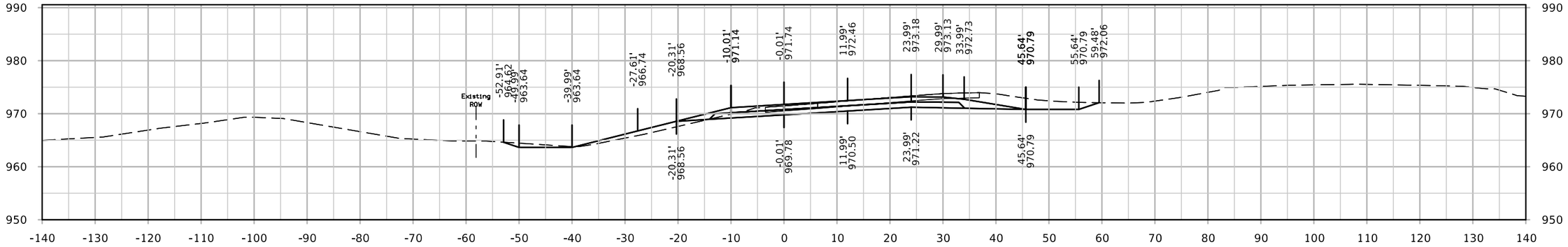


STA. 41311+00.00

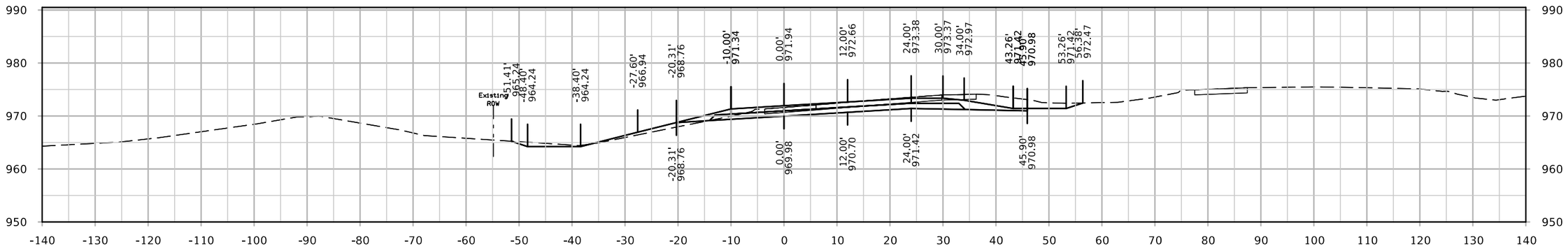
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.2	

8:13:30 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn

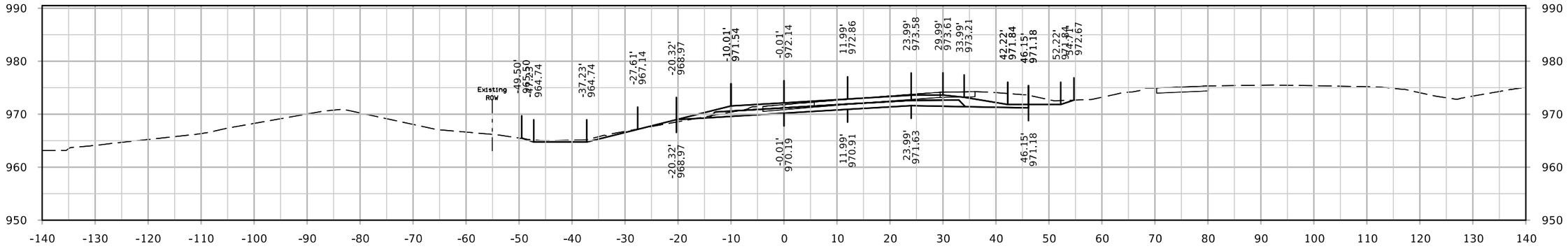
Ramp C



STA. 41312+25.00



STA. 41312+00.00

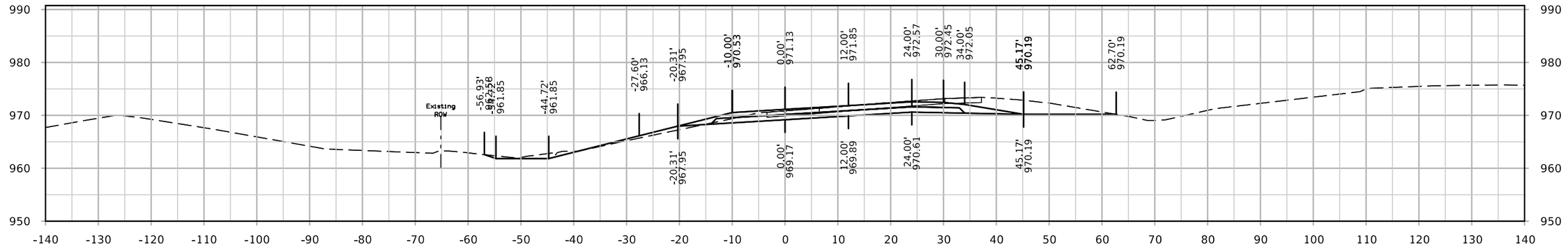


STA. 41311+75.00

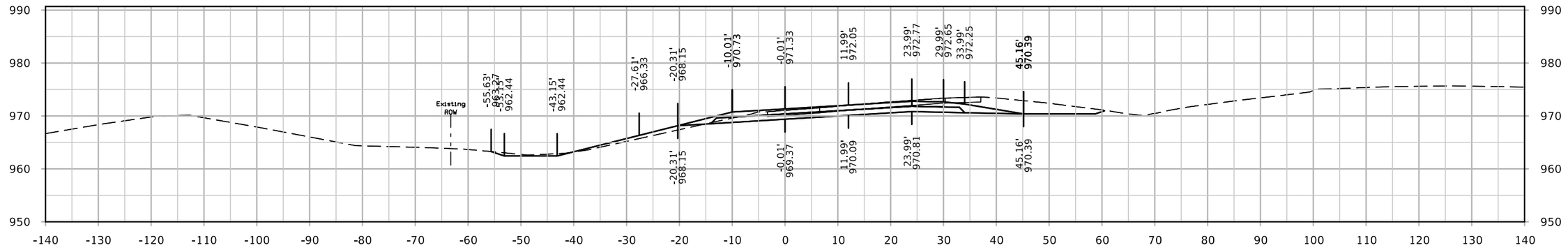
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.3

8:13:31 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn

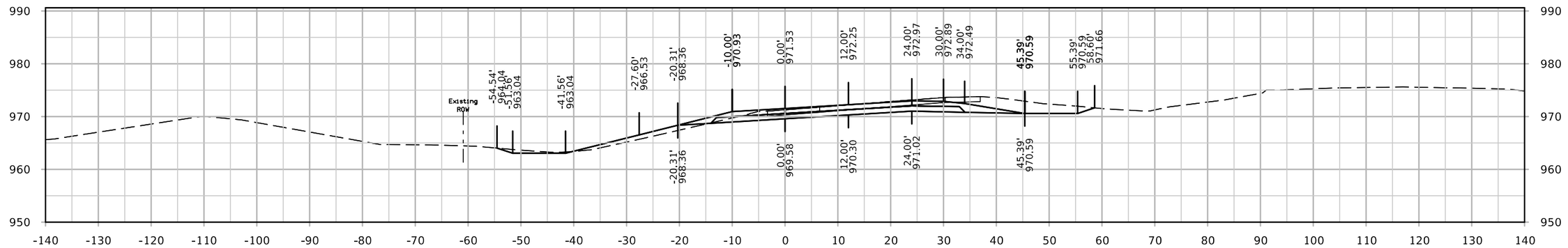
Ramp C



STA. 41313+00.00



STA. 41312+75.00

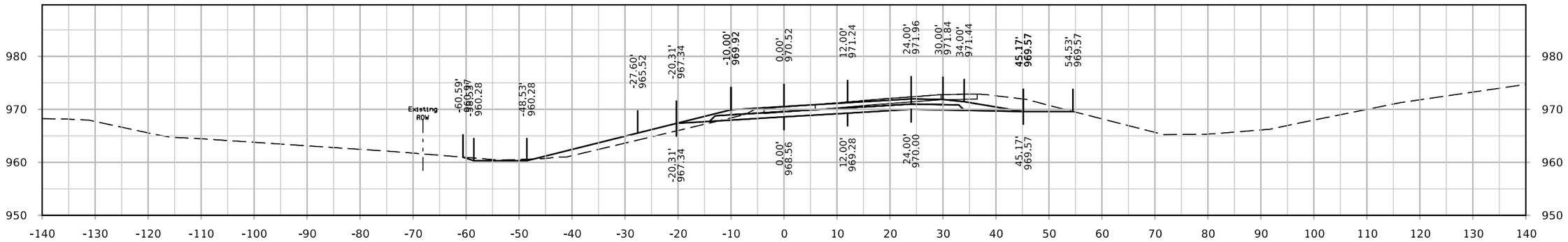


STA. 41312+50.00

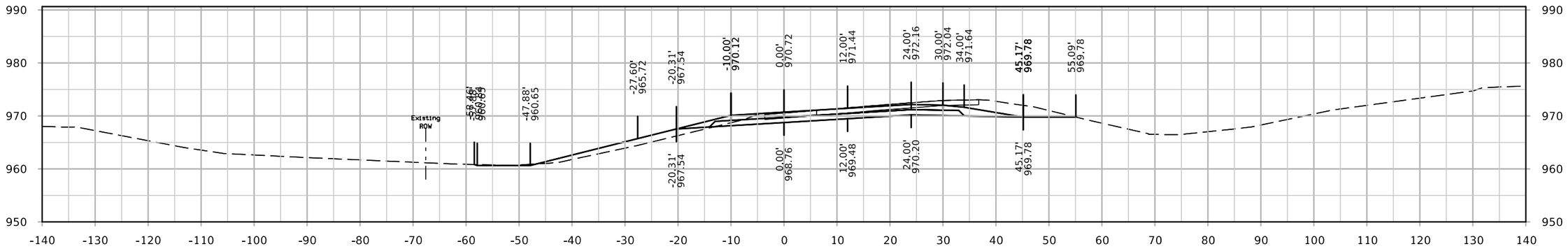
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.4

8:13:33 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn

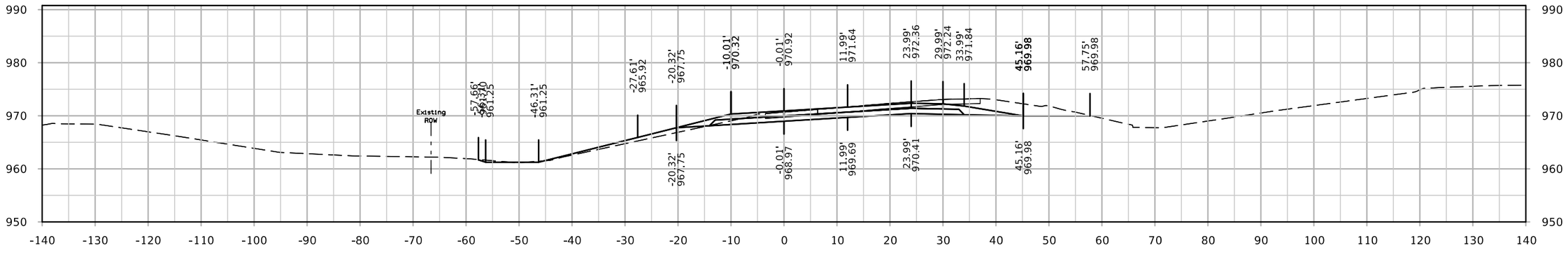
Ramp C



STA. 41313+75.00



STA. 41313+50.00

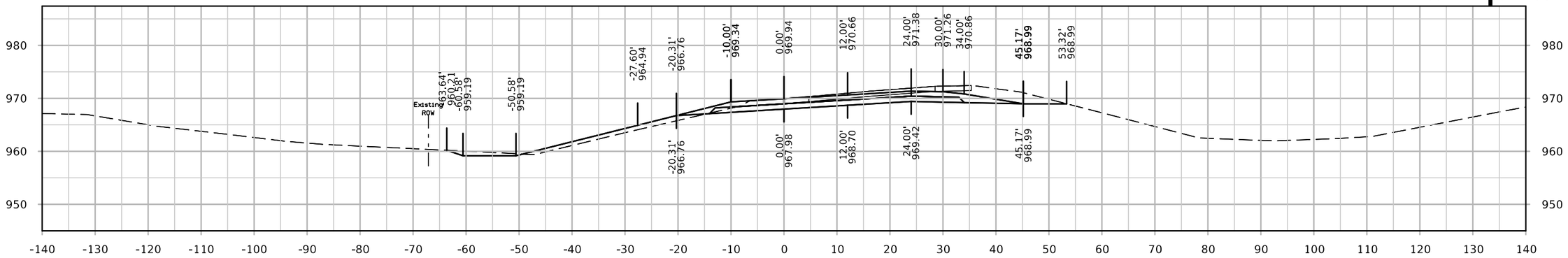


STA. 41313+25.00

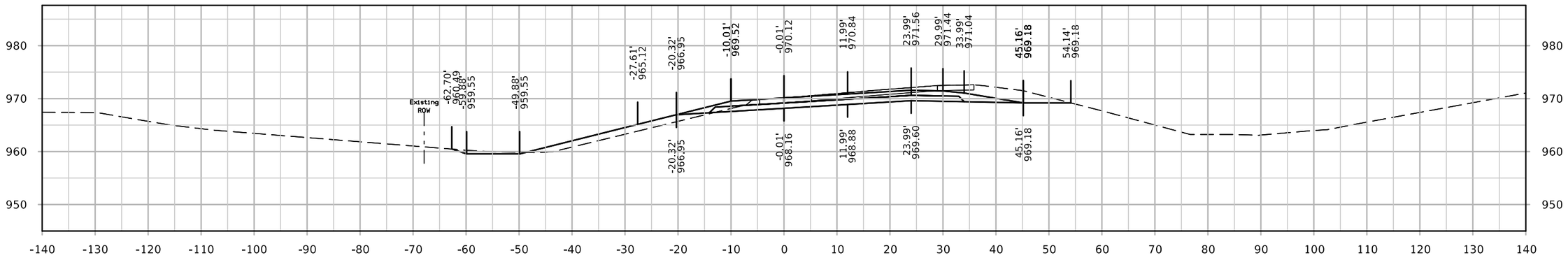
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.5

8:13:34 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn

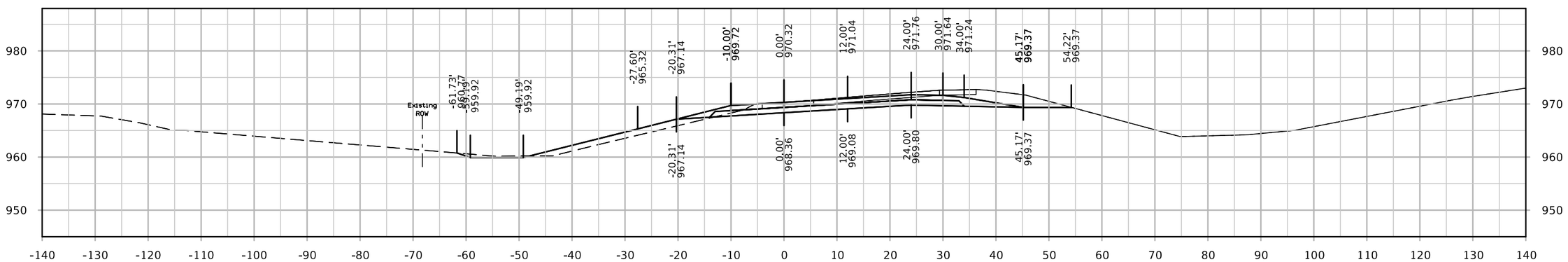
Ramp C



STA. 41314+50.00



STA. 41314+25.00

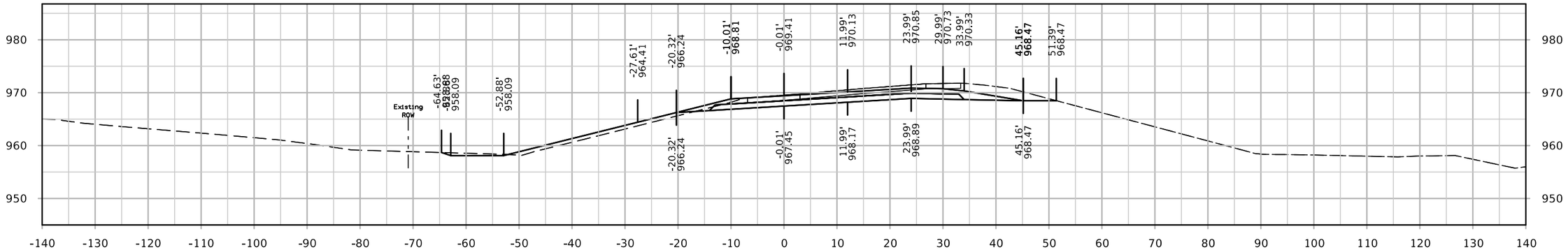


STA. 41314+00.00

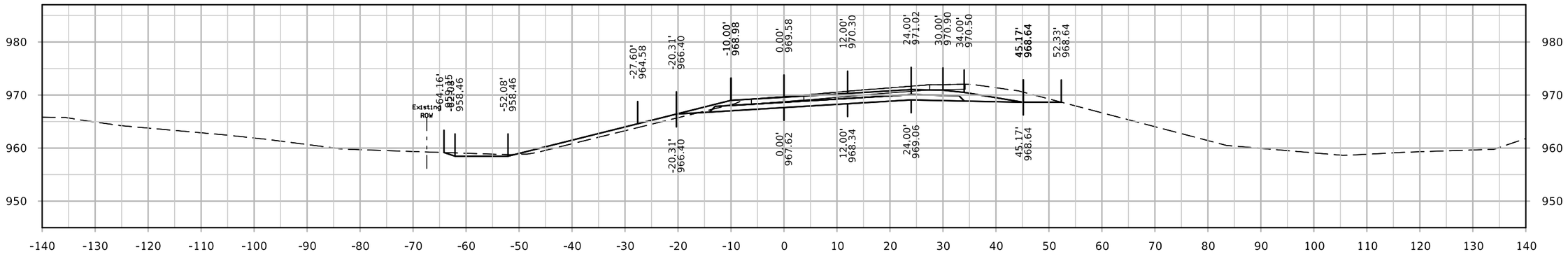
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.6

8:13:36 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn

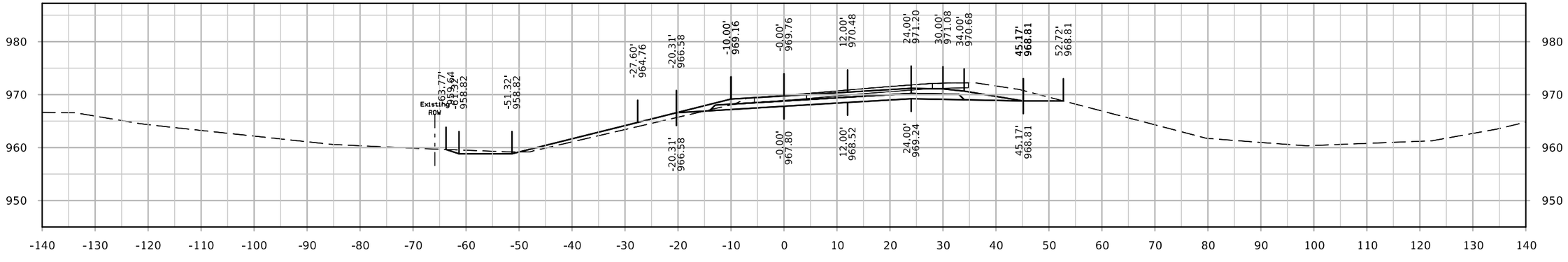
Ramp C



STA. 41315+25.00



STA. 41315+00.00

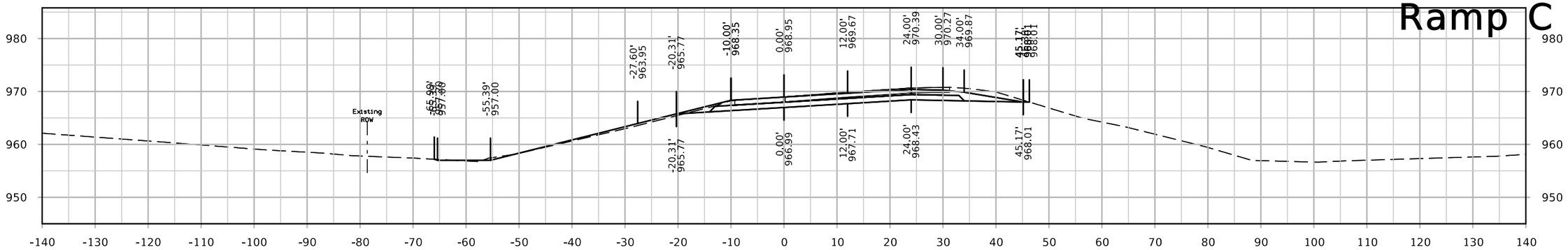


STA. 41314+75.00

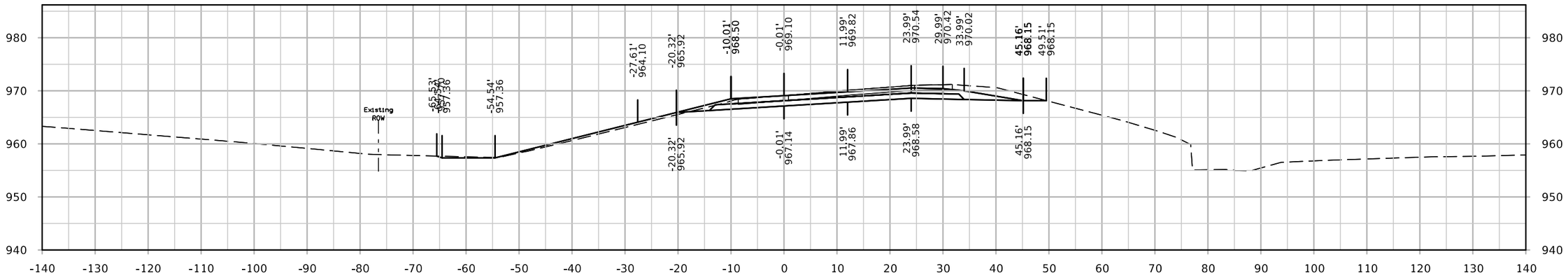
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.7

8:13:37 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn

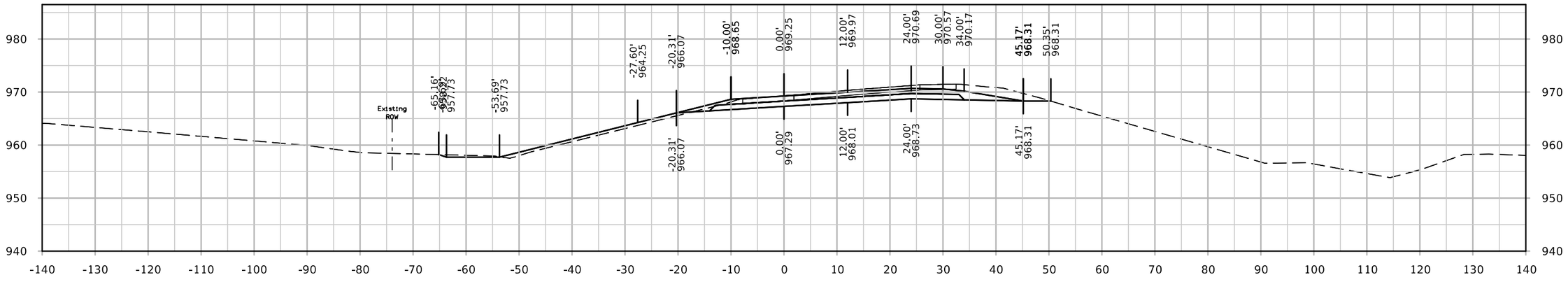
Ramp C



STA. 41316+00.00



STA. 41315+75.00

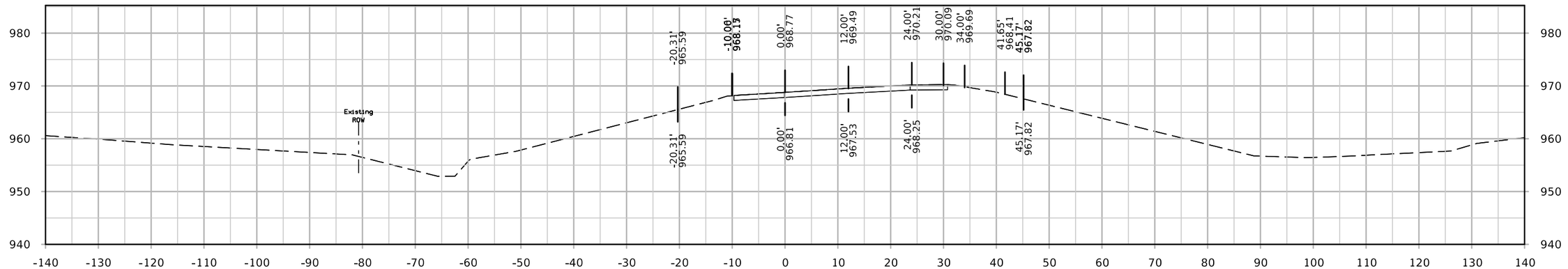


STA. 41315+50.00

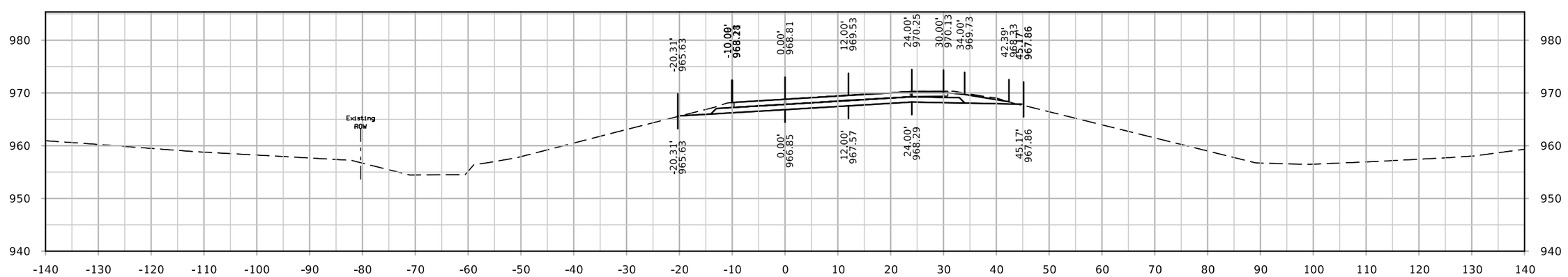
FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.8

8:13:38 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn

Ramp C



STA. 41316+32.21



STA. 41316+25.00

FILE NO. -	ENGLISH	DESIGN TEAM Holst/Strum/Janus	Polk COUNTY	PROJECT NUMBER IMX-080-3(299)122--02-77	SHEET NUMBER Y.9

8:13:39 AM 2/9/2022 ajanus2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7708002020\Design\(299)_Grade_Pave\CADD_Files\Sheet_Files\SHT_77080299_Y01.dgn